The All Year Schools of Newark, N. J.

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Report submitted by Dr. Wilson Farrand and Professor M. V. O'Shea, based upon investigation conducted by them to determine the efficiency of the All-Year schools in comparison with the so-called Traditional schools.

PART I

REPORT OF FINDINGS AND CONCLUSIONS CONCERNING THE ALL-YEAR SCHOOLS IN NEWARK

A. Introductory

I.

In June, 1925, the Board of Education of Newark invited us to examine evidence relating to the success or failure of the All-Year schools. The Board had previously passed a motion to abandon the All-Year schools on September 1, 1925, but the wisdom of this action had been so widely and so insistently questioned that the Board had decided to reconsider the whole question. The invitation to review the evidence bearing upon the question in controversy was accepted, and we devoted some time to a study of all the available data relating to the efficiency of the All-Year schools. Data were placed in our hands which apparently showed that the All-Year schools had not accomplished the purpose for which they were established and had been maintained. These data showed further, apparently, that the difficulties of administering two types of schools—the All-Year and the so-called Traditional—in one system were practically insuperable. It was charged that the continued shifting of pupil population and the presence in the All-Year type of school of pupils who were following the plan of the Traditional rather than of the All-Year school rendered efficient administration of the schools impossible. It was charged, further, that the cost of the All-Year schools was so excessive that their abandonment was imperative.

On the other hand, data were placed in our hands controverting every accusation brought against the All-Year schools. These latter data showed, apparently, that the data used in support of the contention that the All-Year schools had been a failure were not properly treated and the conclusions derived therefrom were unsound. The defendants of the All-Year schools believed they had shown conclusively that every charge made against the schools was invalid.

We found, further, that teachers and laymen were taking sides in respect to the All-Year schools, some maintaining that they should be abandoned, and others maintaining just as stoutly that they should be continued because of the superior service they were rendering to the City of Newark. In interviews with various persons we found that they had all reached definite convictions, which could not be

modified by examining data apparently leading to conclusions contrary to their opinions. In consequence of these conflicting data and convictions, we found it impossible to arrive at any final conclusion respecting the validity of either the data, the conclusions, or the opinions that had been presented to us, and we therefore recommended that data be secured by investigators who were neither hostile nor friendly to the All-Year schools, but absolutely neutral concerning them. The Board of Education accepted our recommendation and appointed us to secure impartial data, in view of which we might make positive recommendations regarding the continuance of the All-Year schools.

II.

In pursuance of the plan of investigation which the Board approved, we secured the co-operation of a number of specialists, who agreed to come to Newark and assist us in securing accurate, unbiased data relating to all the questions involved in the All-Year school controversy. Our first problem related to an expert examination of the data submitted, on the one side, by the administrative office in Newark, and, on the other side, by the principals of the All-Year schools, the conclusions from which were almost without exception diametrically opposed. To assist us in determining the accuracy of these conflicting groups of data and the conclusions based thereupon, we secured the co-operation of Professor W. Carson Ryan, Jr., of Swarthmore College, who was formerly connected with the United States Bureau of Education, and who had had a large and varied experience in conducting school surveys, particularly in the statistical investigation of educational problems. We placed in Professor Ryan's hands the data supplied by the administrative office and the data supplied by representatives of the principals of the All-Year schools. Professor Ryan was just starting to conduct a survey of the schools of Porto Rico, and he took the data with him and studied them *en route,* going and returning. After his return he came to Newark and devoted a considerable amount of time to a first-hand study of the problems involved. We are including with our Report the Ryan Report, which comprises a detailed discussion of the data in view of which the Board of Education passed a motion to abandon the All-Year schools.

III.

In our report to the Board of Education in June, 1925, we recommended that data should be secured by a thorough-going application of intelligence and achievement tests to pupils in All-Year and in Traditional schools, in order that it might be possible to compare the ability of the All-Year with the Traditional group of pupils and their educational achievement. It was apparent to us that it would be impossible to arrive at a satisfactory conclusion regarding the success of the All-Year schools unless we could secure information that

could be derived only from the application of precise tests and measurements. We asked Professor William A. McCall, of Teachers' College, Columbia University, to co-operate with us in securing these data and he consented to do so. Professor McCall had had a great deal of experience in measuring educational work, so that he brought to the task of diagnosing the All-Year school situation in Newark skill of the highest quality. He organized a large staff of co-workers to administer the tests and then to score, tabulate and interpret the results. He was appointed director of the measurement work, and he appointed two assistant directors, Mr. Vernon A. Jones, of Columbia University, and Miss Harriet E. O'Shea, of Bryn Mawr College—the former being principally responsible for administering the tests and measurements, and the latter being responsible principally for supervising the scoring and tabulating the data. We are including with our Report the McCall Report, which comprises a detailed presentation of the methods employed by Dr. McCall and his assistants in the measurement part of our study and the conclusions derived from the data that were secured.

IV.

In our report to the Board in June we stated that it seemed to us that in comparing the work of pupils in the All-Year schools with pupils in the Traditional schools it would be imperative to make a study of the racial, economic, hygienic, and other conditions which would affect the work of pupils in one group of school as compared with the other group. We reported that the data that had been put into our hands did not take account of conditioning factors, so that we could not render a decision respecting the validity of the data upon which the Board of Education had decided to abandon the All-Year schools. In making the survey of economic, hygienic, racial, social, and lingual conditions surrounding the pupils in the All-Year as compared with the Traditional schools, we secured the services of Dr. Andrew T. Wylie, of Columbia University, who had become distinguished because of his original contributions to the solution of vocational and educational measurement. Dr. Wylie applied himself to the task of diagnosing the Newark situation, and he developed, in co-operation with Dr. McCall and his assistants, some original methods of ascertaining and determining the weight of various factors affecting the work of pupils in the All-Year as compared with the Traditional schools. We are including in our Report the Wylie Report, which comprises a detailed presentation of the methods employed by Dr. Wylie in his investigation and the results which he secured.

V.

Finally, in our report to the Board of Education in June, 1925, we stated that one of the important factors in determining whether the

All-Year schools should be continued was the playground facilities accessible to children in the All-Year school districts. From a cursory examination it seemed to us that these facilities were quite inadequate, and it was decided that accurate data should be secured regarding the playground situation. In the study of this problem we secured the assistance of Dr. R. K. Atkinson, of the Russell Sage Foundation, in New York, who had been devoting himself to an investigation of the playground situation in various cities and who could bring expert knowledge to an investigation of the situation in Newark. We include with our Report the Atkinson Report, which comprises a detailed analysis of the playground situation in the All-Year school districts of Newark, with recommendations for improvements.

B. IMMATURITY OF GRADUATES OF ALL-YEAR SCHOOLS

The action of the Board of Education in deciding to abandon the All-Year schools was based in considerable part on data which apparently showed that pupils were carried through the All-Year schools so rapidly that at graduation they did not possess sufficient maturity to undertake high school work. But at the same time data were submitted which apparently showed that pupils did not move through the All-Year schools any more rapidly than through the Traditional schools, so that the All-Year schools were not accomplishing their purpose. Apparently the inconsistency of these two sets of data and conclusions was not detected. As a matter of fact, pupils do not graduate from the All-Year schools two years earlier than pupils graduating from the Traditional schools; there is only a negligible difference between the ages at graduation of All-Year as compared with Traditional school pupils.

It has been found by us, in confirmation of the data which determined the action of the Board of Education, that, taken as a whole, graduates of All-Year schools do not attain as high standing in secondary schools as do the graduates of Traditional schools, but the reason therefor is not immaturity, but an entirely different cause. Professor McCall's investigation has shown by the application of tests and measurements that pupils in the All-Year schools do not possess the types of ability essential for excellence in the work of secondary schools in as high degree as the graduates of Traditional schools taken as a whole. The failure of the All-Year school pupils to make as good a record in high schools as Traditional school pupils must be ascribed to a deficiency in natural endowment in respect to the particular intellectual qualities required for the completion of literary, linguistic and abstract mathematical work in secondary schools, and also to unfavorable social, hygienic, economic and lingual conditions, as shown in the Wylie Report.

The foreign pupils in the All-Year schools cover a wide range of ability. The abler pupils who save time in completing the elementary course in general do well in high school. But the All-Year schools have a larger proportion of less abe pupils, and, as our studies

show, these schools are more successful than the Traditional schools in keeping them from dropping out and in carrying them through the course. The All-Year schools thus are graduating a considerable number of pupils who are not mentally qualified to do satisfactory work in the conventional high school studies. This problem is to be met, in our judgment, not by retaining them longer in the elementary schools, but by providing for them the opportunity to pursue studies adapted to their abilities and their needs. Admission to the high schools should be determined not simply by graduation from an elementary school, but by tested ability to do high school work. Those who do not give evidence of such ability should have the opportunity to undertake work that they can do, and that will be of more benefit to them. The weight of the evidence gathered in our investigation tends to show that the charge brought against the All-Year schools that they push their pupils too rapidly through the elementary grades so that they do not have sufficient maturity to undertake high school work, is not true of any but a small percentage of the pupils—no larger a percentage probably than with graduates of Traditional schools.

We wish to impress the fact that if the All-Year schools should be abolished, most of the pupils who are served by them would be compelled to continue in the elementary school one or more years longer than is now the case, and this would carry them beyond the compulsory school age. Would they remain to graduate? It is highly improbable that a large proportion of them would do so, which means that in the All-Year school districts there would be many pupils leaving school before they had completed the elementary course of study. As it is now, pupils have entered the adolescent age before they graduate from an All-Year elementary school, and it is better for them in every way to go forward into either a Junior or a Senior High School than to continue in the school which they have attended for eight years. It is not sound policy to hold back adolescents to associate and work with pupils of elementary, intermediate, or even grammar grade. We are not unmindful of the administrative and educational problems arising from the presence in Traditional high schools of pupils who cannot accomplish linguistic, mathematical, and literary tasks in a satisfactory way; but these problems cannot be solved by lengthening the elementary school period one or more years for pupils in the All-Year school; the detention of the All-Year pupils in the elementary school for a longer period than is now the case by abolishing the All-Year schools would not enable these pupils to overcome the handicap of lack of natural endowment for Traditional high school work. The solution of the problems requires that the educational program for All-Year pupils be adapted to their abilities and needs, and that pupils be not admitted to literary, mathematical, and linguistic courses unless they show by proper tests and measurements that they are adapted to pursue such courses profitably and without clogging the educational machinery. It is wasteful and inefficient to attempt to carry handicapped and favored children through the same educational regimen.

All-Year schools should be continued was the playground facilities accessible to children in the All-Year school districts. From a cursory examination it seemed to us that these facilities were quite inadequate, and it was decided that accurate data should be secured regarding the playground situation. In the study of this problem we secured the assistance of Dr. R. K. Atkinson, of the Russell Sage Foundation, in New York, who had been devoting himself to an investigation of the playground situation in various cities and who could bring expert knowledge to an investigation of the situation in Newark. We include with our Report the Atkinson Report, which comprises a detailed analysis of the playground situation in the All-Year school districts of Newark, with recommendations for improvements.

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C. PROMOTIONS IN THE ALL-YEAR SCHOOLS

The Board of Education decided to abandon the All-Year schools partly because the data presented to it apparently showed that the work in the summer months was of little account, since pupils were not promoted any more rapidly than traditional pupils. It is shown in detail in the Ryan Report that the conclusion reached by the Board is educationally unsound. It is true that the All-Year schools are not accomplishing what it was supposed that they would accomplish when they were originally established, namely, that they would enable pupils to complete an eight-year elementary course in six years; when these schools were established it was not possible to determine whether pupils served by the All-Year schools possessed the type of intellectual ability that would enable them to complete the typical school subjects in standard time. We know now, though, from the application of precise tests and measurements, that the All-Year school pupils are, taken as a whole, deficient in respect to this type of ability, so that it is impossible for them to accomplish a standard year's work in standard time—that is to say, in ten months. The All-Year school, by furnishing substantially two months additional schooling each year, enables the children to accomplish in eight years what would otherwise require a longer time to accomplish. The data which warrant this conclusion are presented in detail in the Ryan and McCall Reports. Our data show that the All-Year schools are advancing the pupils whom they serve more rapidly than Traditional schools could do, but they are not doing this in the way in which it was supposed, when they were originally established, would be the case. The more the pupils in the All-Year schools have taken advantage of the opportunities offered by the All-Year schools, the greater is their superiority over comparable pupils in Traditional schools.

D. ADJUSTMENT OF PUPILS IN THE ALL-YEAR SYSTEM

The Board of Education acted upon data which apparently showed that pupils in the All-Year schools who attended for ten months only lost one month each year in their progress through the schools, and also that pupils who shifted from All-Year to Traditional school districts, or vice versa, were unable to make easy adjustment, so that they lost time and produced confusion in the educational system as a whole. The data relating to these questions submitted to the Board are examined in detail in the Ryan Report, and there are derived from them very different conclusions from those which the Board acted upon. We are convinced that the All-Year school does not create confusion in the educational system on account of the shifting of pupils from one school to another, which cannot be largely alleviated by administrative care. Data are presented in the Ryan Report relating to the shifting of pupil population and showing how the adjustments are actually made and how they can be made without much disturbance or loss of time. The All-Year type of school organization results in less loss of time from shifting of pupil popu-

lation than does the Traditional type; in the latter, the terms are longer than in the former, so that when pupils lose time they lose more of it in making adjustment to a five-month than to a three-month term.

E. REDISTRICTING SCHOOLS IN THE ALL-YEAR SCHOOL DISTRICTS

In the Ryan Report, data are presented showing the geographical relations of the various schools in the All-Year school sections of Newark. These data show that it would not be administratively impossible to adopt a redistricting program so that pupils in the All-Year sections who do not wish to attend school for twelve months could be assigned to a Traditional school, and vice versa. In this way one complaint lodged against the All-Year schools would disappear and the efficiency of the All-Year schools would be somewhat increased. So far as the investigators know, there is no community in this country in which schools are so close together as they are in the sections of Newark served by All-Year and contiguous Traditional schools. A pupil in these sections could attend any one of a half dozen schools and not go farther from his home or encounter greater obstacles or dangers than would be the case in most other communities if he should attend but one school. With All-Year and Traditional schools within a stone's throw of one another, pupils could be given some latitude in choosing the type of school they would prefer to attend, though this would increase the detailed work of the administrative office somewhat. However, we believe that educational administrative machinery should be operated for the greatest benefit of the children of a community, and the welfare of children should not be sacrificed in order to secure administrative simplicity. The Superintendent of Schools should be provided with adequate assistance to administer the complex educational system of Newark in accordance with the best interests of all the children of the city.

F. CONCLUSIONS DERIVED FROM APPLICATION OF TESTS AND MEASUREMENTS

The data in view of which the Board of Education reached the decision to abandon the All-Year schools were complicated by many factors which had not been differentiated and the value of each determined. Extremely complex situations were dealt with in a general and unanalyzed manner. For instance, schools were compared in respect to educational achievement that were not comparable in any respect because of differences in a variety of determining or affecting factors. In planning our investigation we decided at the outset that it would be necessary to secure comparable groups of pupils in the All-Year as compared with the Traditional schools, in order to measure the effect of "All-Yearness" as compared with "Traditionalness" in the progress of pupils through the schools. Our method of accomplishing this is described in concrete detail in the McCall Report. The data show that the All-Year schools are serving pupils most of whom require more schooling to accomplish

a given unit of school work than do pupils in the Traditional schools. When we compare a group of pupils who have been under All-Year school influence continuously with a group of pupils who have been in a Traditional school continuously, both groups being affected by similar conditions outside of school, as determined by investigations made by Dr. Wylie, we find that the pupils have gained by their summer work and are ahead of the Traditional school pupils. The amount of gain is stated in Educational Age, and the relation between this and the additional amount of schooling which the All-Year pupils have had is explained in the McCall Report. The evidence is conclusive that additional work during the summer produces a gain in Educational Age. Thus the data derived from tests and measurements confirm the conclusions reached from an analysis of the data submitted by the administrative office, namely, that the All-Year schools are enabling pupils who attend throughout the year to make greater progress than would otherwise be possible; and Professor Ryan and Professor McCall conducted their investigations entirely independently and without any comparison of data or conclusions until after their Reports had been completed.

G. PLAYGROUND FACILITIES IN NEWARK

We reported to the Board of Education in June, 1925, that the playgrounds accessible to pupils in All-Year school districts were not adequate to provide a substitute for the schools during the summer months. A thorough-going survey of playground facilities was made by Dr. Atkinson, and details and conclusions are presented in his Report. The data are conclusive; with hardly an exception the playground facilities in the All-Year school sections are inadequate. If the All-Year schools should be abandoned the pupils who now attend throughout the year would spend much time on the streets, unless some other type of school should be established in the place of the All-Year type. The streets in the All-Year school sections of Newark are not suitable for children's play; the streets would not be as wholesome for the children as the schools. Further, the playgrounds in their present condition are of such a character that they are not very enticing to children. They lack shade almost completely, and the form and setting of most of them are such that they do not attract young persons strongly. It is pointed out in the Atkinson Report how playground facilities can be increased and improved, and it is earnestly hoped that the Board of Education will follow the program that has been outlined; but in the meantime, the All-Year sections of Newark are without proper play facilities, which compels the conviction that it would be a serious mistake for the Board to abolish the All-Year schools, thus leaving children in extremely congested sections of Newark to find their own occupation during a long summer vacation.

The Board has had before it a proposal to institute summer schools in place of the All-Year schools. If pupils would attend the summer schools as largely as they now attend the All-Year schools,

we are unable to understand what advantage of any sort would be gained by substituting the one type of school for the other. If pupils would not attend the summer schools, then the plan to substitute it for the All-Year school would be without force or effect.

II. JUVENILE DISORDER DURING THE LONG VACATION

We have made inquiry of school and juvenile court officials in several cities, in some of which proposals to establish All-Year schools are now under consideration. One of the reasons why there is a movement throughout the country to establish All-Year schools is to reduce juvenile disorder during long summer vacations. It has apparently been shown in other cities comparable with Newark, that when children in congested sections have no regular occupation during many weeks at a time, they easily get into "mischief" or commit offences of a more or less serious character. There can be no doubt that when children in sections like the All-Year school sections in Newark are not wholesomely occupied continuously throughout the summer, they constitute a source of anxiety to the community as well as to their parents. This matter should receive serious consideration by the Board of Education before it decides to carry into effect its motion to abolish the All-Year schools; it is simply an added point in favor of retaining the All-Year schools. We have made inquiry of the courts in the City of Newark, and we are informed that there has been no more juvenile disorder during the summer months than during other months of the years, and this should be regarded as a very important point in favor of the All-Year schools, which have succeeded in keeping a large proportion of children in the All-Year sections of Newark out of "mischief" during the summer. Add to this the fact that a very large proportion of parents and children in the All-Year districts are eager to have the schools in operation during the summer months, and the conviction is strengthened that it would be a detriment to community well-being as well as an educational handicap to abolish the All-Year schools.

I. THE COMPLEXITY OF THE NEWARK SCHOOL SITUATION

There is no community in our country, or perhaps in any other country, that has a more complex school problem to solve than has the City of Newark. There are, in fact, small cities within a larger city. Particularly, there are sections of Newark which have become peopled almost entirely by persons of foreign birth, who possess foreign ideals, foreign methods of treating their children, and foreign standards of personal and community hygiene, all of which is shown strikingly in the Wylie Report; but there are other sections inhabited by persons of different ancestry, different habits of living, and different objectives in life. The children who are born into the homes in these different sections are environed by altogether different influences and are affected by different hereditary forces. Newark

has been attempting to conduct schools for all these groups of children in substantially the same way. It has been insisting upon the same program of work in All-Year schools, the pupil population of which is almost completely foreign, on the one side, the Traditional schools, the pupil population of which is almost completely American, with entirely different social, economic, racial, hygienic and lingual conditions, on the other side. Quotations are printed in the Ryan Report which show that the diversity of factors that should determine an educational program have been appreciated by those administering the schools, and yet the value of the All-Year schools as compared with the Traditional schools has been discussed on the supposition that they ought to do the same kind of work in the same way. It is imperative that Newark should at once set about the task of making a critical scientific study of the possibilities and needs of pupils in the All-Year school sections of Newark as compared with pupils in more favored sections. It should not be difficult, at least not impossible, to work out educational programs adapted to the conditions and needs in the different neighborhoods in Newark and still preserve administrative unity in the city as a whole.

J. THE FINANCIAL PROBLEM

We come finally to an analysis of the problem of maintaining the All-Year schools of Newark as compared with the Traditional schools. The data which the Board of Education had before it when it voted to abolish the All-Year schools apparently showed that these schools were excessively expensive. A section of the Ryan Report is devoted to an analysis of the cost of All-Year schools, and it is found that their total cost beyond what summer schools would cost if substituted for them is less than $150,000 annually. The total school budget of Newark is something over $9,000,000. The added schooling given by the All-Year schools, then, costs the City of Newark less than one-sixtieth of the total school budget, which seems to be but a small item and should not weigh heavily in determining whether the All-Year schools should be continued. The Board of Education must decide whether it is worth $150,000 a year to give pupils in the All-Year school sections the advantages of All Year schools. In seeking an answer to this question, the Board ought to be guided by the practice in communities outside of Newark. It is true without exception that throughout America there is a constantly increasing effort being made to keep all pupils in school as long as possible and to carry them as far along in the educational course as conditions will permit. Everywhere the school period is being extended. Everywhere educational facilities are being increased so that the needs of all children in a community can be provided for. Everywhere school officials, and also laymen, are at work trying to provide ways and means so that every child may receive schooling according to his ability and his objectives in life. If Newark should abandon its All-Year school because they cost $150,000 a year more than would otherwise be expended for the education of the children of the

city, it would be taking a backward step that would be directly contrary to the movement in American education everywhere outside of Newark.

K. SUMMARY AND RECOMMENDATION

It will be noted that the question submitted to us by the Board of Education was approached in our study from two entirely different angles, and that the two investigations were conducted on essentially different lines. One was an analytical study of the data submitted by the Superintendent and by the principals of the schools concerned, while the other consisted of a series of scientific tests and measurements comparing pupils of the All-Year schools with those of Traditional schools in respect to ability and achievement. These two investigations were conducted independently, without consultation or collaboration, and it is highly significant that both studies lead to the same conclusions and supplement each other in a most striking way.

Basing our judgment on a close, critical study of these reports, aided by our own personal observation and investigation, we have reached a clear and definite conclusion in regard to the value of the All-Year schools. We find that while they do not do what was originally claimed for them, that is, carry any considerable number of their pupils through eight grades in six years, they do advance their pupils more rapidly and give them greater educational attainment than pupils of similar ability, heredity and social background in the Traditional schools. We find that while it takes the average pupil in an All-Year school nearly eight years to complete the elementary grades, it takes the pupils of corresponding capacity in a Traditional school a distinctly longer time. We find that while All-Year graduates do not make as good a showing in high school as Traditional graduates, the reason is not less efficient work in the schools but the innate capacity of the pupils themselves and the fact that the All Year schools are holding and carrying through a class of pupils who in the regular schools would be likely either to drop out or to be seriously retarded. We find that these schools, in the face of great difficulties, are doing extremely valuable work and are rendering great service, particularly to children of foreign parentage and unfavorable home conditions, and that these children will suffer educationally if the All-Year schools are abolished. We find that the additional cost is not excessive, considering the service rendered.

We recommend, in view of all the evidence, that the All-Year schools in Newark be continued and that they be given every facility to make their work even more efficient and effective than it has been thus far. We recommend that a careful study be made of their possibilties with a view to adapting the curriculum more closely to the needs of their pupils, and that every effort be made to reduce the administrative difficulties which at present handicap the work of these schools.

PART II

Report of Professor W. Carson Ryan, Jr., Presenting Data and Conclusions Pertaining to the Promotion and Adjustment of Pupils in the All-Year Schools and the Cost of All-Year Education.

This report deals with the following matters:

(I) The data presented in the reports of the Superintendent of Schools of Newark and in a study of All-Year schools made by Mr. Warren Roe, with special reference to promotion rate and cost.

(II) The adjustment which pupils make when they shift from an All-Year school to a Traditional school, or *vice-versa*.

(III) The feasibility of permitting pupils in an All-Year school district to attend a neighboring ten-months school, or *vice-versa*.

I. The Superintendent's Reports and Recommendations

In his report of March 26, 1924, the Superintendent of Schools gives three reasons for his conclusion that "the theory that pupils can be accelerated to the point of saving two years in an All-Year elementary school is not true": (1) the constantly changing enrollment in the schools, due to the shifting population; (2) five reorganizations each year, the additional one due to the summer vacation; (3) "criticism of the immaturity of All-Year pupils and their failure in the high schools."

Certain of the points involved here will be considered in detail later. In the meantime, the following facts with regard to each of the three points need to be considered:

(1) *Shifting Enrollment.* The implication in the Superintendent's report is that this problem of shifting is peculiar to the All-Year schools and their neighborhoods. Dr. Corson himself gives the answer to this in his New York University thesis, where he shows a slightly larger amount of shifting for the Traditional schools than for the All-Year school. The actual figures collected for the present study show a wide variation for the All-Year schools, from as low as one-tenth to as high as one-third. Some of the shifting is unreal, however, in that it comes about from unusually small districts. There is no disagreement as to the fact that there is shifting. The disagreement is as to the conclusion to be reached. The Superintendent says it makes the promised gain impossible; the principals of the All-Year schools say it "blurs the picture"; the fact seems to be that on the whole the All-Year schools with their more frequent promotions reduce the amount of lost time for transferred pupils. The Superintendent, in his report for 1922, describes the All-Year schools and the summer sessions as the chief plans for "securing the right of promotion to pupils." He says: "The short term of the first and the promotion classes of the second are real adjuncts in this important matter." That less time would be lost in shifting to an All-Year school is to be expected. It was a similar situation to this that led to the change from yearly to half-yearly promotions in American school systems.

(2) *"Five Reorganizations."* Most of the principals report that the so-called five reorganizations (the fifth caused by the fact that some pupils remain in school in June who do not intend to continue during the summer) constitute an administrative difficulty of only slight importance that interferes little with the educational process. One principal who is known to have carefully weighed the advantages and disadvantages of the All-Year school says: "It may be argued that the children dropping out have lost the month of June. Actually, I don't believe there is any loss, even though they repeat the month's work when they start the new term in September." Another says: "Under careful planning this reorganization of July 1st may be accomplished in a very few minutes and without loss to pupils." This situation is held by the Superintendent to prevent the gain in time, but his own data do not show it.

(3) *"Immaturity of the Children."* This seems to admit the saving in time the Superintendent denies. If there is not saving, how can there be "these immature" children in high school? Students of present school conditions in America recognize this part of the Newark situation as in no sense peculiar to Newark or to the All-Year schools. It is simply part of the changing program of public education. Present effort everywhere is directed to holding as many children for as long a time as possible in school, and meeting the diverse needs of these children. The Traditional high school is not yet adjusted to this situation, and it is customary to hear teachers in these schools find fault with the new entrants, particularly those from Junior high schools and other types of schools attempting to meet the needs of all children rather than of a selected group. Teachers in Traditional high schools are undoubtedly correct in their assumption that first-year high school pupils are not as good intellectually, taken as a whole, as were those of twenty or even ten years ago. This is simply because our policy of secondary education has changed, and we are at present attempting to educate all children through part of adolescence instead of a few. The more successful a school is in holding children through the grades the poorer will its record almost inevitably be in the high school. This is such an important factor in the Newark situation that it will be referred to repeatedly in this report. That the All-Year schools make it impossible for more children to go on into high school seems to be admitted by all; indeed, the Superintendent uses this as an argument against the schools. But it cannot be made too clear that if in any school system the modern aim is pursued successfully—that of keeping as many children in school for as long a time as possible—there will inevitably be a great increase in average and below-average intellectual material to be handled in the higher grades, and the elementary school that has the most effective "holding power" will, other things being equal, have the poorest record in the high school, while the school that eliminates its poorer pupils will, of course, show an excellent record in high school.

As to the discouragement of All-Year school pupils and teachers, and the possible resultant effect upon the progress of children

through the grades, this is an unnecessary element in the situation that can easily be removed. A policy of faith on the part of the administration in the work of the All-Year schools and an interest in their success, such as formerly prevailed, would undoubtedly be helpful in keeping up pupil and teacher morale; though it must be said that to an impartial observer the pupils and teachers in All-Year schools look and act as if they were more than ordinarily alert and interested in the educational enterprise. Insofar as the opposition of the Superintendent to the All-Year schools lessens the gain that should result, this can, of course, be remedied by a corresponding psychological effect—favorable consideration for what the All-Year schools are doing.

(4) *Comparison of All-Year and Traditional Schools.* It is in connection with the objection that the "All-Year schools have younger pupils than the Traditional schools" (which admits, of course, at least a part of the gain claimed for the All-Year schools), that Superintendent Corson introduces into his report his comparison of eight All-Year schools and eight "contiguous" (neighboring) schools not on the All-Year plan. Since the comparative achievement of these two groups of schools has played a conspicuous part in the controversy, and especially since the attempt to compare them involves the central point in the whole matter, namely, the pupil material with which the All-Year schools are dealing, it is necessary to examine these parallel schools in some detail. The following table gives certain data about the schools summarized from the material given by Dr. Corson in his New York University thesis.*

TABLE 1

Nationality and Language Data for Eight All-Year and Eight Traditional Schools

(The first school named in each pair is the All-Year school)

Schools	Per Cent American White Parentage	Per Cent English-Speaking at Home
Belmont Avenue	7.67	22.04
Charlton Street	7.59	
Newton Street	5.6	
14th Avenue	26.56	43 21
Webster Street	14.6	32.88
Burnet Street	38.87	70.12
Abington Avenue	11.47	34.35
Garfield	55.43	80.29
Lafayette Street	16.54	35.58
Oliver Street	15.0	32.17

* Shall elementary and secondary schools be maintained as All-Year schools? By David B. Corson, School of Education, New York University, 1924 (an unpublished thesis).

McKinley	3.69	15.52
Franklin	11.65	29.8
Wilson Avenue	16.69	28.29
Ann Street	26.32	42 49
Cleveland Junior High	28.86	57.05
Robert Treat Junior High	25.63	55.85

It is important to note how unlike some of these pairs of schools are. Abington Avenue and Garfield, for example, are fairly near neighbors, but in Newark geographical nearness by no means signifies similar pupil material. Abington has 73 per cent of its children of Italian parentage and only 11 per cent American whites, while Garfield has 55 per cent white American stock, 9 per cent British, and less than 21 per cent Italian. At Abington only one-third of the children hear English at home, while at Garfield all but a fifth come from homes where English is heard regularly. A visit to the two school districts reveals other striking differences, especially in social and economic status. What might be a highly creditable promotion or achievement record for Abington would be an unsatisfactory one for Garfield, and *vice-versa*. In the light of present knowledge of individual differences, any comparison of the two groups of schools that does not take account of the mental quality of the pupils loses most of its validity. The real question is not how much more the pupils of one school achieve than those of another, but how much progress each school makes with the material it has to deal with and how much each individual pupil does with the resources he has.

As a whole, the All-Year schools in Superintendent Corson's comparison are dealing with pupils whose average promotion rate is bound to be lower than that of pupils in the Traditional schools. Five of the eight All-Year schools have a lower percentage of native white Americans than their "companion" schools (usually much lower), and in six of the eight All-Year schools a disadvantage in amount of English spoken at home is recorded as compared with the Traditional schools. The language situation alone is striking. The difference between Abington and Garfield has been mentioned. At 14th Avenue, a Traditional school, 43 per cent of the children hear English at home; at Newton Street, only 18 per cent. In the Burnet Street school 70 per cent of the children hear English in their homes, whereas in Webster Street, the school with which it is compared, only 33 per cent hear English at home.

The relative success of Traditional and All-Year schools cannot be measured by comparing pairs of schools so unlike in pupil material. Only by comparing pairs of pupils of similar intelligence levels and similar handicap or lack of handicap in language, one of whom has spent his whole school life in an All-Year school, and the other in a Traditional school, can any definite answer be made as to the exact amount of gain. Even then it will not be a case of two years in eight, but rather of a percentage of something like twenty or twenty-five on the base of what would have been normal progress for the particular individual considered. So far as children of lower

academic mental level* and language handicap are concerned (and the All-Year schools in foreign neighborhoods have more than the average share of these) the real promotion question is not "Have they finished the elementary course of eight years in six?" (for few of them will ever do it), but rather, "Instead of taking nine, ten, or more years to finish the elementary course, as they would ordinarily have to do if they finished it at all, how much further on in their school careers have individual pupils gone than they would have gone if they had not had the opportunity of overcoming part of their handicap by summer study?

The Superintendent gives but little information on the intelligence scores of pupils in his reports or elsewhere. He speaks of the importance of the information, but explains the difficulty of collecting it. The only material he was able to present in his thesis on this part of his investigation concerned the members of the graduating classes. While this material is not sufficient, it shows something of the situation in All-Year and other schools, and may presumably be considered in connection with the more recent data collected by members of the present investigating staff. The following is Dr. Corson's table showing the mental Ages and I. Q.'s for the members of the graduating classes of the same pairs of schools previously compared:

TABLE 2

Mental Ages of Graduating Classes in All-Year and Traditional Schools—May, 1923

School	Mental Age	I. Q.
Belmont Avenue	13—6	104
Charlton Street	13—10½	102
Newton Street	13—6	95
14th Avenue	14—2	100
Webster Street	13 –6	97
Burnet	14—7	94
Abington Avenue	13 0	96
Garfield	14—1	104
Lafayette Street	12—6	93
Oliver Street	13—7	97
McKinley	11—0	81
Franklin	15—0	90
Wilson Avenue	13—0	95
Ann Street	13—11½	96
Cleveland		96
Robert Treat		107

* By "lower mental level" is of course meant not only below-average score as indicated by a so-called test of intelligence. No reflection whatever is intended upon the desirableness of these children for full participation in American life as workers, neighbors, and citizens. Progress through the grades in an American school system, however, is at present determined by greater or less capacity for certain types of achievement, and it is generally admitted that this capacity can be measured.

Even this table, confined to members of the graduating class, shows a lower level of academic intelligence in six of the eight All-Year schools than in the corresponding Traditional schools. It is another bit of evidence that the All-Year schools are dealing with poorer material as measured by intelligence tests. The Superintendent notes in his thesis: "It is clear that the All-Year schools are graduating pupils of inferior intelligence to those graduated from Traditional schools and are sending them on to the high schools." This is admitting, of course, one of the chief claims for the All-Year schools, that they keep more children in school longer. It also makes clear one reason why the All-Year schools cannot produce large numbers of children who have completed the elementary course of eight years in six.

In his own summary in the thesis, Superintendent Corson brings out the other handicaps under which the children of foreign parentage do their school work. He says:

> These children of many lands live in homes in congested sections of the city. They are limited in an environmental manner by home and neighborhood handicaps. Their forebears have had an environment quite different from that introduced and engrafted upon American civilization by the Anglo-Saxon immigration into this country. Their attitudes and cultures, as well as their mother-tongues, are different.

This is precisely the line of argument one would expect to see used in favor of the All-Year school. But Dr. Corson follows this description of the pupils by saying: "Considering the need of Americanization, do these handicaps justify speeding up on acceleration, hurrying through the schools, as provided in the All-Year plan of organization? On the fact it is unreasonable and unjust to the children. It is more reasonable and more just that these children should have a longer time to do an eight-year course; they should have a longer term than a five-months' term for the same work instead of a three-months' term as in the All-Year school." The fact is that foreign children in the All-Year schools do have a "longer time . . . to do an eight-year course"; that is, those who need it do; indeed, the Superintendent elsewhere uses this as an argument against the schools. As for a longer than five-months' term, it may well be argued that the more frequent unit of promotion helps provide for the wide variation in children's abilities.

Repeated studies of intelligence show that while the median scores are low for racial-social groups like those that make up the Newark All-Year school population, there is very wide variation in such groups, with some very superior as well as some very inferior individuals. Much of the difficulty in the Newark situation is due to the fact that when the schools were first introduced, the wide variations in human capacity were even less understood than they are now,

and the completion of eight grades in eight years was supposed to be a normal achievement for practically all children. It is now known that children of the group that largely make up the Newark All-Year schools would not normally make the eight grades in eight years, under any conditions. The All-Year school makes it possible for these children to have more time for this achievement than other more favored children have. Abolishing the All-Year school, therefore, would be depriving handicapped children of one way that has been devised for overcoming at least part of their handicap.

II. THE RATE OF PROMOTION IN THE ALL-YEAR SCHOOLS

The original claim for the Newark All-Year schools was that they would save two years in eight, presumably for the "average" child, though this was not always explicitly stated. Dr. Poland himself, as quoted by Dr. Corson, said:

> The arguments for the All-Year school, briefly stated, are as follows: It will enable a great many more pupils to complete the full elementary school course and enjoy the benefits of the new high schools. It will enable a great many boys who are obliged to leave school to go to work at the age of 14, or soon thereafter, to attend the Boys' Industrial School. It will enable the school plant to be used to its full capacity. It will save two full years, approximately, of the eight years now required to complete the elementary school course, and by relieving to some extent the congestion of pupils in the grades it will afford room for pupils who are crowding the lower grades.*

This was at the very beginning of the experiment. Six years later, when the schools had been in operation long enough so that Superintendent Corson was able to say "the evidence is sufficiently convincing to assert that the experiment has been successful." the Superintendent put as the first object of the All-Year schools "to save time in completing the elementary curriculum." Dr. Corson gave at that time figures for Belmont Avenue school that illustrate admirably the typical claim for the All-Year school. He said:

> That these schools are taking more pupils through school —the result of gaining time—is evident from the following facts in reference to the Belmont School. It had, when the All-Year plan was introduced, 1926 pupils and 50 teachers. On October 1, 1918, it had an enrollment of 1718. During the six years preceding the inauguration of the All-Year plan the school graduated 268 pupils; during the six years following it graduated 836 pupils. In this time it has graduated 24 classes, 12 more than it would have graduated under the old plan. The number of pupils in these 12 extra

* Dr. Corson's unpublished thesis, page 17.

> classes was 417. If the old plan were in use these pupils would still be in the school, and there would be, at a conservative estimate, eight half-day classes in the building. It is undoubtedly true that many of the pupils would not have been able to stay in school to graduate under the old plan. The outstanding fact is that there has been a very great increase—because they have gained the time in the number of children graduated. . . . These facts prove that time can be saved in completing the elementary curriculum and that large numbers of children avail themselves of the opportunity to save it.*

From the point of view of public policy, the All-Year schools might conceivably be justified without regard to promotion rate. There are doubtless some who would accept the Superintendent's statement that the schools are successful in "Americanization" as amply justifying the work of these schools, particularly in view of the small expense involved.†

Promotion rate itself is a difficult element to get at in any school system. There are numerous factors that are likely to be overlooked, especially if schools are to be compared in the mass. Every investigator knows how dependent promotion rate usually is upon variation in teachers' marks, often within the same school. Examination of the promotion percentages in the Superintendent's reports since 1922 show rates varying from 2.7 per cent to 99.8 per cent with frequent differences of from 10 to 30 per cent. Few schools have worked out the necessary machinery for standard tests of intelligence, to say nothing of standard tests of achievement, that are prerequisite to an understanding of the progress of pupils. Some school administrations lay down a more or less definite policy of promotion percentage, without regard to pupil material, demanding such and such proportion of promotions each year, and this policy changes with administrations. There is even a tendency to question the whole promotion and grade scheme as subversive of real education. Professor J B. Sears, a recent writer on school administration, says:

> In American schools the term "grade" has become firmly fixed as the name of a definite part of our elementary school organization. . . . Such a system is good if it is flexible to the extent that the educational needs of children are fully met; it is poor or vicious when it has no such flexibility. Our first concern, therefore, is to know whether a grade is something to which all children must conform alike or

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* David B. Corson, address before the Massachusetts Superintendents' Association, November, 1918, Journal of Education, December 5, 1918, page 5 of reprint.

† About 1½% of the total Newark school budget. See pages 23-25 of this Report.

whether it is a grouping designed and operated in terms of the character and needs of the children.‡

It is doubtful, therefore, if mere promotion rate has quite the importance in the All-Year school situation that most people assume for it. There are other and probably more valuable reasons that might be urged, not the least of which is the desire of the children themselves to go to school in the summer. Nevertheless, claims and counter-claims have been made, and it is necessary to examine the data and the conclusions and see to what extent and in what manner, if at all, there is a better promotion rate, or better pupil progress, in the All-Year schools than in schools not organized on this plan. It should be understood that promotion rate and educational achievement are not the same, and that, while actual educational achievement can also be shown, the present discussion has to do only with rapidity of progress through the grades.

In his report recommending the abandonment of the All-Year schools, the Superintendent gives few data that have any bearing upon promotion rate. Such as he does give, however, show unmistakably some gain for the All-Year schools, even though the Traditional schools with which comparisons are made are the ones previously shown not to be fairly comparable. In this comparison the Superintendent's own data and his interpretation show a gain of at least part of a year for the All-Year school. To quote:

> The average ages of entering the third year in each type of school are 9.01 and 9.03; the fourth year, 9.8 and 10 years. The pupils enter the fifth year averaging 10.9 and 11.2; the sixth year, 11.8 years (in the All-Year schools), while the pupils begin the sixth year in the Traditional schools averaging 12 years of age. The All-Year pupils finish the eight-year course at an average age of 14 years, while pupils in the Traditional schools finish at 14.2 years.

A still more interesting admission of some gain in time is found in the comparison of graduates of the two groups of schools which Dr. Corson makes. "A comparison of the ages," according to the Superintendent, "shows the immaturity of the graduates" of the All-Year schools. If it does, then it clearly reveals the acceleration which the Superintendent elsewhere denies. He says:

> Of the All-Year classes, 54.3 per cent averaged over 14 years of age and 45.6 per cent averaged under that age; of the Traditional schools, 88.8 per cent averaged over 14 years of age and 11.1 per cent under that age. Of 3,772 graduates (of All-Year schools) who entered high schools, 1,950, or 51.6 per cent, were under 14 years of age. The

‡ Sears, J. B. The School Survey, page 207.

> eight Traditional schools for the same period sent 3,213 graduates, of whom 1,055, or 32.8 per cent, were under 14 years of age.

Time has certainly been saved for many of these All-Year school graduates, according to the Superintendent's own interpretation. In his effort to prove the immaturity of the children and their consequent inability to do high school work, Dr. Corson is obliged to admit considerable gain. In one breath he says the pupils are not gaining the promised time, and in the next he complains that as a result of the gain they are immature.

WHAT IS GOOD PUBLIC POLICY?

The real question, of course, comes back to a matter of public policy in education. Shall as many children be saved for as much education as possible, or shall the "best" pupils only be selected for further education and the rest neglected? Shall we try to put as many as possible through at least some adolescent schooling, or shall we prefer to have our school system measured by the work of those who can do the conventional high school work and by those alone? Discussion of mere promotion rate arithmetic becomes almost absurd under these conditions, for if a school takes the modern way and tries to educate as many as possible, there will be bound to be more and more sent along who are less able to do regular high school work, and the school with the best record so far as holding-power is concerned will be the poorest in its record for "scholarship" in the ordinary high school.

In his thesis Dr. Corson says: "No one will deny that the records of the graduates of an institution may be considered evidence of its success or failure. . . . The record made by graduates who went to the high schools is a fair measure of the success of All-Year schools." This is precisely what would be denied by any student of modern public education in America—if, that is, by "record" is meant scholarship standing in the conventional high school subjects. Many a secondary school in the United States has gained a reputation for itself by this method—that of relentlessly eliminating all who do not come up to a fixed standard. Under certain conditions, and for certain purposes, where selection for a definite career is the aim, this practice can be defended. But where the community is presumably committed to a policy of educating all the children, meeting abilities and needs rather than eliminating pupils from school, then the efficiency of an elementary school cannot be judged fairly in any such way as the Superintendent suggests. The real test is: What has the school done with what it had? How many has it kept in school? How many has it helped to go further than they would otherwise have gone? How well have the individual pupils in this school done their work in relation to the ability they started with?

Good teaching and good administration in the Newark schools do not mean merely turning children of superior ability over to Bar-

ringer High, but in seeing to it that as many children as possible are educated as well as possible—quite a different thing. The duty of the high school today is held to be to take these young folks (all of them, not just the pick) and do the best it can for them. This modern theory that the purpose of public education is to help people educate themselves for their own betterment and that of society has seldom been better stated than by Superintendent Corson before the Massachusetts' Superintendents' Association in 1918. Paying his respects to certain teachers in academic high schools who have sometimes failed to grasp the new conception of public education, Dr. Corson said on that occasion:

> The high school teachers have not had to deal with the children of democracy until recent years. The secondary schools have generally had the autocratic notion that they should have a carefully selected body of students. The All-Year schools are now sending to them pupils who under the regular plan could never have hoped to enter high school. They would have been stranded in the grades, and after a time they would have dropped out. It is also true that many from the regular schools cannot and do not survive in the high schools. . . . The "sink or swim" policy of secondary schools must be changed to fit the new conditions. . . . The cause for complaint by high school teachers is due to poor judgment used in the lower schools in promoting and graduating unfit pupils, rather than to the plan of organization of the school from which they came. . . .
>
> The great service of the American school to the nation and to the cause of democracy will be more and more realized and appreciated. So will its possibilities. With this there will be an insistence that the school shall give greater service, more diversified service, service to all the youths—not merely to the intellectuals of the nation. This cannot be done with hosts of children withdrawing before they have finished the sixth grade, nor upon the theory that elementary education is a preparation for the college-preparatory work of one secondary school. To do it the children must be kept in the schools; they must get through the elementary schools earlier than is now usual. . . .
>
> They must be educated in secondary schools for living and not for college—some in practical arts, some in mechanic arts, some for commercial pursuits, some for academic distinction and leadership. There must be an effective propaganda for this purpose. The goals will then be more clearly recognized and sought. The All-Year school will be of great importance in this already inaugurated program of service.*

* The All-Year School. By David B. Corson, Superintendent of Schools, Newark, N. J. An address delivered before the Massachusetts Superintendents' Association at their annual meeting held in Boston, November, 1918. Reprinted from the New England Journal of Education, December 5, 1918.

As a matter of fact, the record of All-Year graduates in high school is not bad anyway. The table given on page 155 of the Superintendent's report to the Board is reassuring, on the whole. The Superintendent speaks of the greater mortality of the graduates of All-Year schools in high school, but this is obviously the natural situation if All-Year schools are to do what they were created for—keep handicapped children a little longer in school before they go to work. In this respect they have an effect similar to that frequently observed in Junior high schools in American communities—raising the leaving-age for children at least another year. There will naturally be more drop-outs of All-Year pupils than of others, because of the mental, social, and economic makeup of the population served by these schools, and the records of the drop-outs will for similar reasons inevitably be lower than those of their companions from the same schools who are able to persist. Under the circumstances it is distinctly creditable to the All-Year schools that from nearly one-half to nearly two-thirds even of those who have had to drop out have done their work successfully.

But there is much more conclusive evidence on promotion rate than has so far been cited. The unpublished report of the Superintendent of Schools for 1924-25 gives a table of promotion percentages. Separate figures are given for All-Year schools, these figures representing the percentages of promotion for the four three-months' terms of the All-Year school year. As they stand, these percentages are not comparable in the ordinary way with the percentages for regular schools, since the All-Year school has a program that calls for 4/3 of the work of a regular school. In order to compare the two types of schools it is necessary to reduce these percentages to a common basis. To illustrate: The Superintendent reported an average percentage of 77.4 for the All-Year schools for 1921. This means, according to the principals who furnished the figures, that the equivalent of 77.4 per cent of the All-Year pupils did 4/3 of an ordinary school year's work in the period from September, 1920 to August, 1921. This is the same as saying that the equivalent of 103.2 per cent (77.4 multiplied by 4/3) of the All-Year pupils accomplished the ordinary school-year course of study (not the All-Year lengthened course) in a year. On the basis of the last published report of the Superintendent of Schools (1922) Mr. Brinkerhoff, one of the All Year school principals, worked out a corrected table for the years then available. A similar table to include the figures for the three years since 1922, as given in the tables in the unpublished reports, would read as follows, the last column representing a conversion of the average promotion rate given for the All-Year school in the preceding column into terms comparable with the percentage for the regular schools:

TABLE 3

Promotion Percentages for Regular and All-Year Schools, 1913-1925

Year	Percentage promoted in regular schools	Percentage of All-Year school promotions (equivalent of percentage who did 4/3 year's work)	Percentage of All-Year school promotions computed on basis of "regular" year's work per year
1925	86.4	77.0	102.6
1924	86.9	75.2	100.3
1923	89.6	78.2	104.3
1922	89.7	75.4	100.6
1921	89.7	77.4	103.2
1920	90.3	80.9	107.9
1919	87.5	73.0	97.3
1918	90.1	83.4	111.2
1917	87.0	84.5	112.7
1916	90.0	87.4	116.5
1915	91.9	84.7	112.9
1914	91.5	83.2	110.9
1913	89.3	82.3	109.7

These figures probably show the situation as accurately as it can be shown in mass data. There are the same objections to this use of the statistics that have been pointed out; in particular, no account is taken of the variation in pupil material, which is the most important consideration in the case of the All-Year schools. It is possible, however, to compare the All-Year schools with regular schools in similar neighborhoods. The following is a table of promotion percentages up to 1922 in certain regular schools in "foreign" districts as drawn from the annual reports of the Superintendent of Schools:

TABLE 4

Percentage of Promotion in Certain Regular Schools in Foreign Districts Compared with Other Regular Schools

	1919	1920	1921	1922
Foreign regular schools: (Average for year)	76.8	76.9	78.2	77.9
Foreign regular schools: 2 per cent added for summer school promotions	78.8	78.9	80.2	79.9
All regular schools: (Average for year)	85.3	88.5	87.5	88.0
All regular schools: 2 per cent added for summer school promotions	87.5	90.3	89.7	89.8

It is evident at once that promotion rates in the Traditional schools in foreign districts are considerably lower than the average for all the city schools—approximately 10 per cent. A comparison of the corrected percentage rates in terms of an ordinary school year's work shows clearly the real situation:

TABLE 5

Promotion Rates in All-Year Schools, Regular Schools, and Foreign Regular Schools, 1919-1922

All-Year Schools	1919	**97.3%**
" " "	1920	**107.9%**
" " "	1921	**103.2%**
" " "	1922	**100.6%**
Regular Schools	1919	**87.5%**
" "	1920	**90.3%**
" "	1921	**89.7%**
" "	1922	**89.3%**
Foreign Regular Schools	1919	**78.8%**
" " "	1920	**78.9%**
" " "	1921	**80.2%**
" " "	1922	**79.9%**

The clear advantage thus shown for the All-Year school when compared with other schools serving the foreign population checks readily with other data in the reports of the Superintendent of Schools. As already shown, Dr. Corson's own data make the graduate of the All-Year schools two months younger than the average graduate of the regular schools. It is evidently the smallness of this amount that misleads the Superintendent into his belief that the promised two years has not been gained. The gain is clear enough, but it does not cause the *mass* of children in All Year schools to finish the eight-year course of study in six. Dr. Corson's figures in his thesis on 360 graduates of All-Year schools in February and May, 1924, show that 28, or 7.7 per cent, had finished the eight-year course in six years or less; 75, or 20.8 per cent, in less than seven years; and 117, or 32.5 per cent, in less than eight years. In other words, 61 per cent of these graduates had actually completed the course in less than the eight years required. What the All-Year schools really do is to make possible a gain of about 25 per cent over what the pupils would normally do. There is general agreement that the capacity for school progress of the average All-Year pupil is about 80 per cent of normal. That is, children in All-Year schools move ahead one-fourth faster than they would in regular schools, but since they are not, on the average, up to the level of normal children, they do not complete eight years of work in six. If left in regular schools, they would take nine or more years to complete the eight-year course which means that most of them would not complete it at all. In the All-Year school the average foreign child does ten months' work in twelve—that is, he does the equivalent of the

ordinary school. It is true that the All-Year pupil does not finish the eight-year course in six years; nor, for that matter, does the regular pupil from the same kind of a neighborhood finish the eight-year course in eight. In either case the child is one or more years behind schedule, but in the All-Year school the handicapped child (and he is the average child in these schools) can finish two years behind schedule time (according to the original plans for the All-Year schools) and still be at the right age as compared with the normal boy or girl. Dr. Poland's original claim for an approximate gain of two years therefore seems to be justified, only it is not two years in eight, but two years in ten, if one insists upon dealing in the mass. Better stated: The All-Year school simply enables each child to make a proportionate amount of gain in covering a certain amount of ground beyond what he would ordinarily cover at the rate that is normal for him. For a few bright children this means actually doing the eight years' work of the regular school course in six; for a few of the most handicapped it means merely a little additional progress in a school career that is bound to be slow at best; for the great mass of the children in foreign neighborhoods, it means completing a regular course in a little less than eight years instead of the nine or more years that would be normal for them, as shown by the records of pupils in foreign Traditional schools.

III. THE COST OF ALL-YEAR SCHOOLS

In his original report recommending the abandonment of the All-Year schools, the Superintendent gives practically no data on costs. He shows that the per capita cost of the All-Year high school was $170.19 for the year preceding, as compared with $150.43 for the standard high schools, or an increase of about twenty dollars to take care of two additional months of schooling. He speaks of high school teachers kept on in the All-Year high school after the enrollment had dropped, but gives no specific statement of loss from this source, merely contenting himself with the statement that "there is doubt about the truth of the claim often made that the All-Year school is economical." By figuring up loss in daily attendance in the high school during the summer, the Superintendent finds that the reduction in state money over a period of years totalled $2,304, but, of course, the appropriation from the state for All-Year pupils in the summer time, which he does not mention, would be between thirty and forty thousand dollars for a single year. The Superintendent gives the sum of $690,832 as the amount spent for teachers' salaries in the extra two months of the All-Year schools over a period of five years. No attempt is made to indicate the obvious offsets or to relate this total to the many millions spent for education in Newark in the same period.

More tables of costs are given in the thesis, but here, too, the effort is to state totals over a long period rather than to relate the expenditures for All Year schools to the annual school budget and to the educational needs of the city. A lump sum of one million

dollars is indicated as the amount spent for the All-Year schools in excess of what they would have cost as Traditional schools since 1912.

Tables of operating costs for the All-Year schools have been worked up by the principals from the Superintendent's 1922 report, the last published. This material checks in all essentials with the data given in the New York University thesis. The following table, which is adapted from the table prepared by the principals, seems to contain the essential facts:

TABLE 6

Cost of All-Year Schools (Summer Sessions)

1	2	3	4			
Schools	Cost of summer sessions, elementary and high schools	State allowance for summer attendance (approximate)	Cost of summer school if All Year school is discontinued	State allowance for such summer schools	Actual cost to city of summer session of All-Year schools (Col. 3 less Col. 5)	Actual cost to city of summer schools if such were maintained (Col. 4 less Col. 5)
Central	$41,670	$5,780	$10,417	$1,927	$35,890	$8,491
Cleveland Jr. H.	7,571	2,380	1,643	793	5,196	850
Abington	13,181					
Belmont	13,155					
Cleveland	13,390					
Newton	13,353	(10,000 x		(¼ of		
Lafayette	17,466	10 cents		allowance		
McKinley	21,117	x 34)		of		
Webster	10,813			All-Year		
Wilson	13,030			schools)		
Totals	$164,746	$42,160	$40,936	$11,220	$122,586	$29,716

It is evident from an examination of this table that no large sums can be saved by abolishing the All-Year school summer work. The total cost of summer sessions for 1922, the last year for which published figures are available, was $164,746. Offsetting this amount was approximately $42,160 received from the state. Summer schools such as the Superintendent recommends in place of the All-Year schools would cost $40,936, and the state allowance for such schools would amount only to $11,220. The actual cost to the city of maintaining the All-Year schools in the summer, therefore, was $122,586, and since summer schools to replace them would mean a net expense to the city of $29,176, the total possible saving on the basis of the 1922 figures would be $92,879.

The 1925 figures on file in the Superintendent's office show an expenditure of approximately $200,000 the last year for the summer sessions of All-Year schools. Allowing for the usual amounts from

the state and making other adjustments, it is found that a net cost of $150,000 might reasonably be charged against the All-Year school enterprise. For elementary All-Year schools alone, this total would be considerably less. Newark's total school bill last year was between nine and ten millions of dollars. In other words, to cut off summer sessions of All-Year schools would mean a saving of a little over 1½ per cent of the city's annual bill for education. It is doubtful if those who have advocated the elimination of the All-Year schools have realized how small an item the expense of the summer sessions of these schools is in comparison with the total budget.

IS IT WORTH WHILE?

The question as to whether this expenditure of 1½ per cent of the school budget is worth while again becomes one primarily of educational policy. It is possible to show actual gains in educational achievement, as Professor McCall's study does. It is possible to emphasize other social gains, probably more important than mere acquisition of knowledge and skill. There are some who will insist that it is easily worth the $5 a month for two months that the Superintendent's report says it costs to keep a child off the streets and doing something worth while in the summer months. Others will argue on the basis of the increased promotion rate principals of the All-Year schools have pointed to the fact that it costs the city "6⅓ per cent more to operate an All-Year school that increases production 25 per cent." Whether this principle of economy is admitted depends upon the results Newark wants. If it is a mere matter of paying out less cash immediately, the All-Year school will not do it. The way to save money without regard to consequences is to eliminate pupils early, as Traditional schools tend to do. The All-Year schools keep more people in school longer, and will therefore cost more money. But if the educational aim of Newark is to keep its children in school and give them as much education as possible, then the All Year school unquestionably offers an economical way of doing it. The All-Year schools tend to keep in school the very children who would have been the first to drop out. They keep in school children who are of such ability that they move more slowly through the grades. They send more children on to high school. Dr. Corson himself gives in his thesis figures which show double the proportion of All-Year school graduates going into high school as compared with certain other schools.

The author of the Nationality and Age-Grade Survey (1923) puts the problem succinctly in the concluding paragraph of his report. Pointing out the special educational problem presented in Newark by the unusual predominance of the foreign-born and children born of foreign parents, and characterizing this problem as one the solution of which will be of inestimable value to the child, to his parents, and to society in general, he says, "*all possible aid, financial and otherwise, must be given to the schools in order that they may secure the results they should.*"

Cost of All-Year High School as Compared with Traditional High School Education

This report deals mainly with elementary All-Year education; but data have been secured relating to the cost of education in the All-Year high school as compared with the regular high school. The figures are apparently very much in favor of the All-Year school. There is much laboratory and shop work in the latter school, which is expensive as compared with mere recitation work; and when this fact is borne in mind in comparing the two types of high schools, the cost *per capita* at Central High is surprisingly lower than the *per capita* cost of education in comparable Traditional high schools.

IV. SHIFTING AND PUPIL ADJUSTMENT

The All-Year schools have frequently been described as a system within a system. Any change over a well-established arrangement means some administrative difficulties, but when the new and the old plans operate side by side there are bound to be more opportunities than ever for maladjustments. On the whole there have been surprising few administrative difficulties in the operation of the Newark All-Year schools, and it is significant that the Superintendent is unable to cite any evidence for the statement in his thesis that "the All-Year plan of Newark introduces confusion and unsolvable difficulties into the administration of schools." Apparently the school people of Newark have tried to remind themselves that "schools are maintained for the sake of educating children and not for the sake of transacting business."

One question that has been raised that does affect "educating children" rather than "transacting business" is that of the shifting from All-Year schools to other schools and *vice-versa*. The situation is complicated by the fact that all the so-called All-Year schools have numbers of pupils who do not attend the two summer months. The number on roll in the various schools who do not attend in the summer ranges from 23 per cent in Abington to 46 per cent in Wilson Avenue, though for most of the schools the figure is between 25 and 30 per cent. Principals of the All Year schools say they make no special provisions for these pupils, though one or two make an effort to persuade as many of them as possible to remain for the summer term. (The usual testimony is that the best pupil material takes advantage of the summer session; that there are, for example, no "discipline problems" then). As to whether these pupils cause any special difficulties, one or two of the principals mention the extra reorganization made necessary on July 1st as the result of the non-summer pupils dropping out at that time, but none of them will admit that the administration difficulties they cause are serious. The question as to what becomes of these pupils cannot be specifically answered for all the schools, but the evidence seems to be that they are simply retarded slightly more than others as a result of their indifference and that of their parents toward the opportunities of the summer session. "Naturally the vast majority of these pupils do not reach

graduation," one principal reports. "They are certainly not advanced too rapidly; they usually retard themselves through indifference, but they could easily adjust themselves if they would." Another insists that "they are just where they would be if they attended a regular school," while still another says: "Theoretically they are retarded one month a year, but, as a matter of fact, they are adjusted. The extra month given to them in June is probably beneficial, but not to be measured."

All the All-Year schools report considerable movement of school population, but, as elsewhere pointed out, this is not a special characteristic of All-Year school neighborhoods. The All-Year schools vary greatly in this respect. In one school several eight-year classes tested in January, 1926 showed all but one or two pupils that had come straight through in the same school from first grade, and, in most cases, all the way from kindergarten. This would be an unusual record in any American school; this particular school was almost exclusively Italian. Some of the apparent shifting is only the result of unusually small school districts. Abington school reported 240 withdrawals in 1925-6: Belmont, 969; Wilson, 301; Lafayette, 490; Webster, 360; Newton, 267. Of these 140 were moving to another school district in the case of Abington, 802 in the case of Belmont, 271 in Wilson, 372 in Lafayette, 323 in Webster, and 258 in Newton. During the same period, Abington received 275 new pupils, of whom 140 were newcomers in the district; Belmont, 827, with 648 newcomers to the district; Wilson, 380; Lafayette, 387; Webster, 230; and Newton, 223; practically all of whom were newcomers in the respective districts. A more detailed study made of the Belmont Avenue school for last year shows 179 beginners, 4 received from special schools, 41 from parochial schools, 82 from other states - Georgia, Maryland, Virginia, North Carolina, Pennsylvania, New York, Massachusetts, Connecticut, Rhode Island, Wisconsin, Ohio, Illinois, Michigan, Minnesota, and 10 from foreign countries, besides 61 from twenty-three different New Jersey communities, and 450 from the City of Newark, of whom 104 came from All-Year schools and 346 from Traditional schools. The flow the other way is equally interesting: 120 graduates, 85 for death or illness, 47 for over-age or Age and Schooling certificate, 37 to special schools, 31 to parochial schools, 60 to other states, 79 to thirty-one New Jersey communities, and 510 to other Newark schools, of whom 60 went to other All-Year schools and 450 to twenty nine different Traditional schools. Principal Roe's analysis of his situation is as follows:

> The 179 beginners are unaffected by adjustment, the 4 special school cases would require adjustment and the 41 parochial school pupils would face placement in any system, as would the colored pupils from the South, the pupils from ten states, Canada and Europe totalling 92 pupils and 61 pupils from twenty-three other New Jersey communities. If the theory of equivalent grades were accepted at face value, the 104 All-Year pupils would require no place-

ment equating, leaving the 346 Traditional school Newark pupils as the crux of the alleged administrative problem. Of these, 249 come from adjacent and surrounding school districts and would be affected by proper All-Year districting. Only 97 pupils remain as the basis of the alleged difficulty and this means 8 monthly, surely not an insurmountable problem even for this one school. Of these 97 pupils, 30 come from better economic areas and 67 from equivalent areas.

The outgoing record is even more enlightening. The 120 graduates, 47 over-age and 82 discharges, constitute no adjustment problem, nor do the 37 special school and the 31 parochial school pupils. The 60 pupils to other states and the 79 pupils to other New Jersey communities would face placement regardless of the Newark type of system. If the theory of equivalent grades be accepted at face value, the 60 All-Year pupils had no adjustment to make. There were 288 pupils who went to adjacent and surrounding school districts and would be affected by proper All-Year districting. The 120 pupils who moved into better economic areas faced some adjustment, as did the 42 who went to equivalent economic areas.

An attempt was made to find whether in All-Year schools generally pupils who transferred lost ground, and, if they did, whether the loss was greater or less than it would be in an ordinary school system. It proved impossible to gather this information for all the transferred pupils from individual record cards, but the principals of the schools were asked to base their statement of the loss, if any, upon such records as they had. Most of the principals point out that nearly all transferring involves some loss, regardless of the type of school. "So far as I can gather from the records," states one principal, "practically all children lose by changing from one school to another. This year I have been greatly impressed with the fact that almost all pupils coming from other schools must be placed in a lower grade. However, there is little difficulty in finding a group suiting their attainments." Another principal, while insisting that there is less loss ("by the difference between a twelve-week median point and a twenty-week median point"), remarks: "Our particular placement is made upon a test basis, and here the poor material received shows a heavy loss which would be present regardless of the time arrangement." The fact that the All-Year school grade is three months is rightly urged by the principals as a reason why the loss would be less, if anything, for a new pupil in the All-Year school than in the Traditional school.

The constant shifting in the Newark school population is a real problem. It does not, however, result from the All-Year organization and it does not affect All-Year schools any more than others. If anything the pupil who transfers to an All-Year school benefits by the more frequent promotion periods.

V. THE FEASIBILITY OF PERMITTING CHOICE OF SCHOOLS BY REDISTRICTING

That each of the All-Year schools has a fairly large percentage of pupils who do not attend during the months of July and August has already been indicated. This is what necessitates the "fifth reorganization" referred to by the Superintendent. As has been pointed out, the principals of All-Year schools do not themselves regard this as a serious administrative difficulty, though they admit that it helps to "blur the picture" of progress of pupils in an All-Year school to have only part of the pupils actually on an All-Year basis. Assuming that it is a more serious problem than the principals seem to believe, can it be avoided?

The answer, so far as most of the schools are concerned, is to be found in the comparatively large number of school buildings and exceedingly small districts in the congested neighborhoods where most of the All-Year schools are located. The Belmont Avenue school is surrounded by other elementary schools. A move of a block or so in the district around this school means frequently that the pupil who has been attending the All-Year school will find himself in a district that does not have the All-Year school. Similarly a pupil who has been attending a Traditional school may suddenly find himself transferred by a move across the street to an All-Year school. A child two blocks away from Belmont Avenue may wish to go to an All-Year school, but he cannot because he is not in the appropriate district. On the other hand, a pupil who does not wish to attend an All-Year school must attend one because he happens to be living in the district of an All-Year school. It is difficult to justify any such system of districting except on some theory of mechanical convenience. No such narrow districting is insisted upon in special or vocational schools; pupils for these schools cross so-called district lines freely.

Of course, Newark school authorities are properly concerned that children, particularly in the lower grades, shall not have to walk too far to school and cross dangerous traffic lines. But in certain sections, Newark's school buildings are located very close to each other, much closer than in most communities. As a test of school distances in Newark, a boy of school age was engaged in the present investigation to walk from various central points and time himself. Starting from the corner of Belmont and Springfield Avenues, for example, he walked in four different directions, marking his location at the end of each five minutes for a total walk of fifteen minutes in each direction. *With a five-minute range of his starting point, he passed through seven school districts;* within ten minutes he passed through fifteen school districts; and within a range of a quarter of an hour he passed through twenty school districts. In other parts of the city, distances are much greater, pupils not infrequently taking ten or fifteen minutes to reach school. Pupils in the Belmont Avenue section have a score or so of elementary schools within the same walking distance as one school in the Forest Hill section of

Newark. The districts in the Belmont Avenue region seem unnecessarily small. Much of the undesirable shifting from school to school about which complaint is made is due to these small districts. It would be a very simple matter, so far as distances are concerned, to work out some plan for districting that would reduce this shifting and at the same time give pupils an opportunity to choose between an All-Year and a Traditional school. At one time, All-Year schools had no local districts and pupils were allowed to enter All-Year schools no matter where they lived, if they desired to gain time in their courses. This was undoubtedly the generous way to handle the situation, though it presented obvious difficulties. As the Superintendent says in his 1922 report:

> It was found unwise to continue the privilege, because of the confusion resulting from a lack, on the part of pupils, of stability and of fixed purpose. They shifted, back and forth, like a weaver's shuttle.

The shifting is evidently still going on, though for other reasons.

Various other plans for redistricting and enlarging the All-Year school districts have been suggested. It is not the purpose in this study to present specific recommendations for such redistricting, but simply to pass upon the feasibility of removing the existing restrictions. There is clearly no reason why a more liberal policy of attendance cannot be developed, so that pupils may have a choice between types of schools, and particularly so that pupils who do not now have the opportunity to attend an All-Year school may do so. In any case, the desire of the children and their parents for schooling should be the controlling factor rather than mere administrative convenience.

VI. CONCLUSION

From the foregoing analysis of the data upon which the Board of Education voted to abolish the All-Year schools, it may be concluded that

1. *The data do not support the Superintendent's recommendation for the abandonment of the All-Year schools.*
2. *Such evidence as the Superintendent presents, when properly analyzed and interpreted, creates a strong argument in favor of the work of the All-Year schools.*

PART III

Report of Professor William A. McCall, Presenting Data and Conclusions Derived from Intelligence Tests and Educational Measurements.

A. Methods of Securing Accurate Data

(If the reader is not greatly interested in methods of studying educational problems scientifically, he may turn at once to Part B of this Report, in which a summary of methods, data, conclusions, and interpretations is presented in a popular form.)

1. *Schools From Which Data Were Collected*

All the eight All-Year schools in the city were measured with all the tests. This included both elementary schools and the Junior high schools. On the advice of all consulted the school for cripples and the school for building trades were not included in the investigation, since the desirability of keeping these as All-Year schools has not been questioned. The All-Year schools that were tested are listed in Table I.

To secure unanimous consent as to what Traditional schools should be tested in order to make comparison with the All-Year schools was much more difficult. Since the investigators were outsiders who lacked an intimate knowledge of the schools, it was necessary for them to ask informed representatives both of neutral and probable divergent points of view to aid in making the selection. Complete agreement was secured from all who participated in these negotiations with regard to every Traditional school except one. The investigators accept the responsibility for the inclusion of one school to which one informed adviser objected. The Traditional schools that were tested are listed in Table 1.

The criteria for the selection of Traditional schools were as follows:

(1) So far as possible there should be as many alternating Traditional schools as alternating All-Year schools. So long as many educators of Newark feel that the All-Year schools are handicapped by many of them being alternating work-study-play schools, the desirability of testing an approximately equal number of alternating Traditional schools will be obvious. The only disagreement concerning the selection of the Traditional schools arose in connection with a Tradiitonal alternating school. Table 1 shows what All-Year and what Traditional schools are alternating schools.

(2) So far as possible the pupil population of the Traditional schools should have the same kind of social background as that of the pupils in the All-Year schools. By social background is meant racial, linguistic, economic, intellectual, and all other such factors of the home and its environment which might conceivably aid or obstruct the efforts of the schools in the education of the

children. Since the All-Year type of school has been adopted in those neighborhoods having the least fortunate social backgrounds, this practically meant that the selection of representative Traditional schools would give us pupils having a comparatively superior social background and capacity for learning school tasks, since a high social background and a high heredity for the above type of learning tend to go together. The only Traditional school whose selection was questioned was one having an inferior social background. Since even its inclusion failed to bring the academic learning capacity and social background of Traditional pupils down to the level of the All-Year pupils, the wisdom of including the school has thereby been confirmed.

(3) So far as possible the selection of the Traditional schools should be such that there would be the minimum elimination of the All-Year pupils when the time came to equate the two groups of pupils for chronological age, mental age, and social background. It seemed desirable that our data should give a picture of the All-Year pupils as a whole rather than a picture of the upper half or upper three-quarters of them. The selection of typical or superior Traditional schools would have meant the elimination of numerous low-type All-Year pupils because of an insufficient number of such Traditional pupils to match up with them, or else it would have meant testing a large number of Traditional schools in order to locate a sufficient number of low-type pupils.

Practically all the difficulties that were encountered in attempting to secure unanimous agreement as to what Traditional schools should be measured arose from a misconception of the nature of the equating that was to be done. As soon as the investigators made it clear that the equating was to be done pupil group by pupil group rather than school by school, rapid progress was made toward securing complete agreement. The reader should make no attempt to judge whether the Traditional schools listed in Table 1 match the All-Year schools listed in that table. We now know that these Traditional schools as a whole are slightly superior in the learning capacity and social background of their pupils to the All-Year schools as a whole. Even though they had been even more superior it would not make any difference as to the conclusions from this investigation, since enough superior pupils would have been eliminated to cut away this excess before proceeding to calculate the difference between the two types of schools. Except for a very minor statistical difficulty known only to statisticians, the selection of another group of Traditional schools would have meant nothing except inconvenience and greater expense.

The foregoing were the criteria for selection. In applying these criteria the investigators profited by the valuable information contained in the Ph. D. dissertation of Newark's Superintendent of Schools, Dr. Corson, and by the generous counsel of as many competent local advisers as could be reached in the

time available. As stated before, this preliminary care was taken, not because fair conclusions required such care, but to save time and expense later.

2. *Pupils Measured*

The pupils tested were all children between the age of 11 years, 0 months, and 12 years, 6 months, inclusive, in all the grades in all the schools selected who were present both morning and afternoon on the single day when all tests were applied.

It involved some inconvenience for the principals of the schools to assemble all the pupils in the school in a special room or rooms for testing, but the effort was worthwhile, for thereby the pupils were equated from the beginning for chronological age, thus eliminating at once one significant variable that would have caused trouble had grade groups rather than age groups been chosen.

All pupils within certain age limits were measured to avoid any possible charge that the method used for selecting out certain pupils to be tested caused the more efficient pupils in certain schools and the less efficient pupils in the other schools to be measured. For the same reason the testing was done in all schools on the same day.

The age limits of 11 years, 0 months, and 12 years, 6 months, inclusive, were chosen after a careful study of the statistics available in the office of the Superintendent of Schools. The investigators desired to test an age group near the graduation age so as to give each school ample time to show how well it was educating its children. At the same time it was desirable that the age be not placed so high that a considerable percentage of the pupils of that age would be located in the high schools. The age limits set are such that practically all the children of that age in the community have entered the schools and practically no child in the schools has left the elementary schools to enter the high schools.

Only those children were tested whose entire school career after kindergarten had been spent in one type of school in order to make sure the effects measured could be definitely ascribed to the type of school in question. No pupil was tested who first entered school above the first grade.

The detailed procedure for calculating ages, investigating school histories, selecting and assembling all pupils is shown in Exhibit A in the Appendix. The forms shown in this exhibit were explained and distributed to principals at a joint conference, and were in turn explained and distributed by principals to their teachers.

3. *Tests Applied*

Multi-Mental Scale. This scale uses verbal material to measure intelligence. The test is composed exclusively of words, but

practically all these words are in themselves quite simple. The difficulty of the test lies not so much in knowing the meaning or meanings of the words as in divining and thinking correctly about the intricate relationships between meanings.

Myers Mental Measure. This is an intelligence test composed of non-verbal or non-word materials. It is a picture test. Although psychologists in different universities agreed with the investigators that the Multi-Mental Scale more probably gives a better index than the Mental Measure of a pupil's capacity to learn the sort of things that are taught in schools, it appeared desirable to use a non-verbal test to avoid criticism from anyone who might think that the verbal content of the Multi-Mental Scale penalized All-Year pupils more than Traditional pupils or vice versa because of a possible greater linguistic handicap.

Stanford Achievement Test, Scale A, Advanced Form. This is a comprehensive educational test, covering such varied phases of schooling as the following: reading for paragraph meaning, reading for sentence meaning, reading for word meaning, computational arithmetic, problem arithmetic, history and civics, literature, nature study, science and geography, language usage, and spelling.

Morrison-McCall Spelling Scale. Because of practical difficulties in applying and scoring the Stanford Achievement Spelling Test, the Morrison-McCall Spelling Scale was substituted for it, the scores on the latter being converted back into comparable scores on the former to facilitate the calculation of a Stanford Achievement Educational Age for each pupil.

Honesty Test. This is an unstandardized but well-validated test of a pupil's disposition to cheat when given an opportunity to do so while scoring his own test. No claim is made that it measures honesty in general. The test was prepared and validated by the Character Education Enquiry at Teachers College, Columbia University. This test was included to evaluate the claim that has been made that the All-Year schools overcome the tendency for good character habits to be weakened by the summer vacation.

Motives Test. This test, prepared by the investigators for this enquiry, sought to determine which type of school has succeeded best in instilling in pupils a liking for school and a desire for further schooling. The validity of this test has not been established.

Civic Attitudes Test. This test, also prepared by the investigators for this enquiry, sought to secure from each pupil a genuine response as to his attitudes toward Newark civic agencies such as the police, courts, board of health, and the like. The object of this test was to evaluate the claim that has been made that the All-Year schools facilitate the process of Americanization The validity of the test has not been established.

Social Background Test. A considerable portion of this test has been shown to have a significant validity. Elaborate checks are

being made as to the dependability of the pupils' responses on other portions of this test, and also as to the validity of the test as a whole. These studies have been made by Dr. A. T. Wylie, who had charge of this phase of the investigation and who submits a separate report. A certain portion of the original social background test has been eliminated because of the difficulty of validating it. Also certain observations by the examiners of the conduct of the pupils they were testing have not been used for a like reason.

All tests were applied by 120 graduate students in Teachers College under the immediate supervision of those in charge of these phases of the investigation, assisted by Doctors Mossman and Reeder of the Teachers College Faculty and Mr. Stuart A. Dodd, Research Fellow of the National Research Council. Some of these students were specializing in measurement. All had had some training in measurement. All had participated shortly before in an elaborate test survey of a large school.

Samples of all tests used, together with directions for their application, will be found in Exhibits B and C, respectively, in the Appendix. The Motives Test and the Civic Attitudes Test are mimeographed together.

4. *Scoring of Tests and Tabulation of Scores*

All scoring was done under the constant supervision of one or more members of the staff in charge of these phases of the investigation. Sample checking of all scoring went on continuously. The scoring was done by graduate students in Teachers College. The scorers received compensation for their work, so the staff felt at liberty to dispense with the services of any scorer found to be so inaccurate as to make final conclusions questionable.

All scores on all tests were expressed as age scores, such as mental age, educational age, honesty age, social background age, and so on, for all tests. The Multi-Mental, Myers, and Stanford Achievement tests yield age scores directly from their own age forms. The original scores on each of the other tests were calibrated against the Multi-Mental Scale by the graphic line of relation procedure, so that their scores also might be expressed as age scores having the same mean and variability as the mental ages from the Multi-Mental Scale.

This calibrating was not absolutely necessary, nor was it done with any thought that social background age, for example, may be interpreted as we interpret mental age. It was done purely as a convenience in equating groups. Also it simplifies the presentation of results to have all differences come in comparable units. Age scores were used instead of T scores or other scores in common use because to do so entailed the minimum labor in view of tables of age-score available for the tests used.

The way in which the scores and other data were tabulated is shown in Exhibit D, Appendix.

III. STATISTICAL TREATMENT OF DATA

The first step in the statistical treatment of the data was to construct a frequency distribution of Multi-Mental mental ages for all the All-Year pupils. This showed how many pupils made each of the various mental ages. Next, a similar frequency distribution was prepared for all the traditional pupils.

The second step was to construct similar and separate frequency distributions for Myers mental ages.

The third step was to construct similar and separate frequency distributions for social background age.

The fourth step was to inspect these three pairs of frequency distributions and decide whether the All-Year or Traditional pupils had the advantage. Casual inspection showed that the advantage lay with the Traditional pupils in every instance. Their advantage was greatest in the case of social background age.

The fifth step was to proceed to the equating of the two groups on all three bases. Since the difference was largest in the case of social background age the first equating was made for it in the expectation that the elimination of the difference in social background age would automatically bring about the elimination of the relatively smaller differences in the two sets of mental ages. But it is not necessary to give here the technical methods required to equate groups on three bases at once. It is sufficient to state that the following principles were kept in mind throughout the process: (1) The equating should involve the minimum loss of All-Year pupils. (2) The final equated groups should show approximately the same percentage of pupils having any defined social background age or Multi-Mental mental age, or Myers mental age. (3) The process for eliminating pupils should not involve any significant bias in favor of All-Year or Traditional schools. (4) The equating should involve the minimum loss of traditional pupils consistent with the three principles just stated. This last point was kept in mind, not because failure to keep it in mind would have involved any bias for or against Traditional schools, but rather that the number of Traditional pupils actually used in calculating the educational differences between the two groups might be sufficiently large to make these differences reliable.

The first column in Table 2 shows the number of pupils tested in the two types of schools. The second column shows the mean Multi-Mental mental age for the Traditional and for the All-Year pupils before any equating was attempted. Below these two entries is given the difference between these two means, namely 1.61. This shows the amount of advantage of the Traditional pupils. The third column shows similar figures for social back-

ground age before equating was attempted. Here the advantage of the Traditional school is 4.99.

The fourth column shows the number of pupils remaining after the process of equating had been completed. The fifth column shows the two means for the Multi-Mental mental ages after the equating had been completed, together with the difference between these two means. The sixth column shows the two means for the Meyers mental age, after the equating had been completed, together with the difference. The seventh column shows the two means for the social background ages after the equating had been completed. The eighth column shows like figures for the chronological ages of the two groups after the process of equating had been completed.

The ninth, tenth and eleventh columns show the standard deviations and the differences between them for the two groups for the two sets of mental ages and the social background age. These standard deviations show the extent to which the amount of variation in mental ages in one group coincides with the amount of variation in the other group, and similarly for the social background ages.

A study of these two paired sets of means and paired sets of standard deviations shows that the investigators were remarkably successful in their efforts to equate the two groups both as to means and variability and on four bases at once, and that, too, without materially reducing the number of pupils in either the All-Year or Traditional groups. These two equated groups then may be considered equal in the excellence of their social background, in their capacity to profit from the instruction of the school, and in their chronological age.

The purpose of all this equating has been not so much to get two groups equal on all these four bases at the present time only. Rather a strict scientific procedure requires that the two groups shall have been equal since the beginning of their school careers. The investigators connot claim that the evidence submitted above proves conclusively and with absolute finality that the two groups were originally equal. It is certain that they have been equal in chronological age. It is extremely probable that they have been equal on the average in social background. On certain assumptions as to the constancy of intelligence as measured by these two tests, they were originally equal in learning power also. Psychologists are generally agreed that past intelligence can be inferred from present intelligence with a high degree of certainty, particularly when we are concerned with groups as a whole and have made use of nonverbal tests. In sum, it is practically certain that these two groups are closely equal now and were closely equal when they entered school.

The sixth step in the statistical treatment of the data was to calculate for each of the two equated groups its mean educational age and standard deviation of educational ages. Both these are shown in Table 2. The difference between these two mean is

1.33 in favor of the All-Year pupils. The standard deviation of the difference is as shown .79, and the experimental coefficient is .61. The experimental coefficient tells us that we can be .61 practically certain that the difference is reliably in favor of the All-Year pupils.

The seventh step was to calculate similar means, differences, standard deviations, and experimental coefficients for honesty age, motives age, and civic attitudes age. These are given in their appropriate columns in Table 2.

The eighth step was the calculation of the means number of months of schooling received by the Traditional group and then by the All-Year group. These two means and the difference between them is shown in the last column of Table 2.

The story of this Table 2 in a few words is as follows: The All-Year pupils have received 6.06 more months of schooling than the Traditional pupils, and they have to show for it an excess of 1.33 months educational age, .67 months of honesty age, .18 months of motives age, and .08 months of civic attitudes age. Since the educational age is far more comprehensive than any other test and also measures more definitely the sort of thing the schools give most of their attention to teaching, educational age should be given far greater weight than all the other educational tests combined. This means that the all-year pupils have about 1/3 months educational excess to show for 6.06 months excess of schooling.

IV. CONTINUOUS ALL-YEAR PUPILS VS. TRADITIONAL PUPILS

The foregoing conclusion might be criticized on the ground that many of the pupils tested in the All-Year schools were not continuous All-Year pupils at all. It is true that many of them have been All-Year pupils part of the time only, and many others have never been All-Year pupils at all.

The force of this possible criticism has been investigated. All pupils who have taken three or more vacations were discarded. The remaining pupils were arbitrarily considered continuous All-Year pupils. The continuous All-Year pupils were equated with the Traditional pupils in the same way that mixed All-Year pupils were equated with Traditional pupils. They were equated also as to the number of alternating pupils. Means and differences were computed according to methods already described. The results of these calculations are shown in Table 3.

This table shows that continuous All-Year pupils exceed the Traditional more than did the mixed All-Year pupils. But the table also shows that the excess amount of school is also greater. Thus the ratio of excess educational status and excess schooling is about the same as the ratio previously reported.

V. EFFECT OF ALTERNATING SCHOOLS

A second criticism that might be made of the conclusions from both the first and second comparisons is that a greater

percentage of the All-Year pupils than the Traditional pupils are penalized or vice versa by being in alternating schools.

The force of this criticism was also investigated. Pupils in All-Year alternating schools were equated with pupils in Traditional alternating schools (Burnet School excepted, since it was but recently made an alternating school). Means and differences were computed according to methods already described. The results from these calculations are shown in Table 4.

Table 4 permits us to conclude that there is no more force in the second criticism than the first. The ratio of educational excess to excess amount of schooling is about the same and in the same direction as was found in the first comparison. Consequently, for the purposes of this investigation it will suffice to concentrate most attention upon the results shown in Table 2, and to consider the bearing of these findings upon the main question to which the Board of Education asked an answer, namely, Shall the All-Year schools be continued or abolished? The significance of the foregoing findings and their relevance to this question are discussed in the latter part of this report.

TABLE 1

Showing All-Year and Traditional Schools Tested; Whether Alternating or Non-Alternating; and the Total Number of Pupils in Each School for Whom Complete Records Were Obtained.

ALL-YEAR SCHOOLS			TRADITIONAL SCHOOLS		
Names of Schools	Alternating or Non-Alternating	No. Pupils	Names of Schools	Alternating or Non-Alternating	No. Pupils
Abbington	Alt.	162	Ann	Alt.	199
Belmont	Non-Alt.	79	Burnet	Alt.	101
Cleveland Jr. H. S.	Alt.	83	Central	Alt.	128
Lafayette	Alt.	201	Charlton	Non-Alt.	99
McKinley	Alt.	241	Eighteenth Avenue	Non-Alt.	106
Newton	Non-Alt.	165	Franklin	Alt.	165
Webster	Non-Alt.	111	Morton	Non-Alt.	127
Wilson	Alt.	134	Oliver	Non-Alt.	180
			Robt. Treat Jr. H. S.	Alt.	175
Totals		1176	Totals		1280

TABLE 2

Showing a Comparison (1) Between Pupils in All Year and Traditional Schools in Mentality and Social Background Before Groups Were Equated; (2) A Comparison Between Pupils of the Two Types of Schools After Groups Were Equated for Mentality and Social Background.

	BEFORE EQUATING			AFTER EQUATING GROUPS																
	No. Pupils	Mean Multi-Mental Age	Mean Social Background Age	No. Pupils	Mean Multi-Mental Age	Mean Myers Mental Age	Mean Social Background Age	Chron. Age Mean	S D Multi-Mental Age	S. D. Myers Mental Age	S. D Social Background Age	Educational Age		Honesty Age		Motives Age		Civic Attitudes Age		No Months in School
												Mean	S. D.	Mean	S. D.	Mean	S. D.	Mean	S. D.	
All-Year . .	1176	130 33	122 74	1140	130 98	119 89	122 78	140 65	19 44	28 15	15 08	139 25	18 24	130 69	22 85	12 024	8 58	120 67	9 16	60 73
Traditional	1280	131.94	127.73	1092	130.97	120 02	123 67	140 96	20 16	30 90	14.48	137 92	18.88	130 02	24.90	120 06	8 34	12 059	9 30	54 67
Difference .		1 61	−4 99		+0 01	- 0 13	0 89	0 31				+1 33		+0.67		+0 18		+0 08		+6 06
Standard Deviation of Difference. . .													.79		1 01		.36		.39	
Experimental Coefficient . . .													.61		.24		.17		.07	

TABLE 3

A Comparison Between Continuous All-Year Pupils and a Group of Pupils Equal in Mentality from Traditional Schools.

	No. Pupils	Multi-Mental Mental Age		Social Background Age		Educational Age		No. Mos. in School
		Mean	S. D.	Mean	S. D.	Mean	S. D.	Mean
All-Year	419	134.26	20 55	122 51	14.20	142 69	18.36	62 94
Traditional	419	134 27	20 55	126 24	17.44	140 53	18.04	55 43
Difference		-0 01		−3.73		+2 16		7.51
Standard Deviation of Difference			1 42		1.10		1.26	
Experimental Coefficient			.002		1.22		.62	

TABLE 4

Showing a Comparison in Educational Achievement of Pupils in Alternating All-Year Schools with Pupils of Alternating Traditional Schools When the Two Groups Are Equal in M. A. and Approximately Equal in Social Background.

	No. Pupils	Multi-Mental Age		Social Background Age		Educational Age		No. Mos. in School
		Mean	S. D.	Mean	S. D.	Mean	S. D.	Mean
Alternating All-Year	791	129.49	20.55	124.19	15.92	137.39	19 68	59.91
Alternating Traditional	560	129 49	20.55	124.51	15.32	136.33	18.92	54.46
Difference		0.00		−0.32		+1.06		+5.45
Standard Deviation of Difference			1.44		.86		1.06	
Experimental Coefficient							.36	

B. SUMMARY OF METHODS, DATA, CONCLUSIONS, AND INTERPRETATIONS

This report presents the data and conclusions derived from the extensive use of intelligence tests and measurements of educational achievement in the attempt to secure accurate, unbiased information bearing upon the question, Shall the All-Year

schools of Newark be continued and perhaps extended, or shall they be abolished? Another way of asking this question would be, If a traditional ten months' type of school, with its two terms of five months each, were substituted for every All-Year type of school with its four terms of three months each, would such a change promote or would it retard the educational advancement of the pupils?

The approach adopted to answer the foregoing question was to match practically the entire population of All-Year pupils between the ages of 11 years, 0 months, and 12 years, 6 months, inclusive, with a group of Traditional pupils having the same average chronological age, the same average present mental age determined by means of a verbal learning-capacity test, the same average present mental age determined by means of a non-verbal learning-capacity test, and the same average excellence of general social background, including racial, linguistic, economic, cultural and other such factors. Furthermore, the two groups were made equal in all the foregoing four characteristics both in their averages and their variabilities. Next it was assumed that groups now so equalized have been equal or approximately equal ever since the pupils entered the first grade.

No attempt was made to evaluate the relative skill of the teachers and supervisors, nor the relative effectiveness of the equipment of the All-Year and Traditional schools used in this study. The general supervision is the same and hence presumably equally effective for both types of schools. The principals and teachers differ for each school, of course, but the method of their assignment is such as to make both presumably equal, except as their effectiveness might be curtailed or increased by the type of school. Furthermore, Superintendent Corson's data on this question in his as yet unpublished Ph. D. dissertation points toward the same conclusion.

Since we have, therefore, two groups of pupils who may be assumed to be equivalent in every significant respect, except for the type of school which they have attended since the first grade, any difference in educational attainment found to exist between them may be ascribed to the type of school attended plus the number of months of schooling which each type provides.

An elaborate battery of educational tests covering numerous conventional aspects of school work and also certain aspects of character were applied to the two groups. In both conventional school subjects and in one aspect of character, namely, honesty in scoring one's own test paper, the All-Year pupils did somewhat better than the Traditional pupils. In the excellence of their attitude toward school and civic institutions, the All-Year pupils are slightly ahead. The Traditional pupils excelled in none of the tests. When those All-Year pupils who have most consistently and continuously attended school twelve months out of each year are compared with an equivalent group of Tra-

ditional pupils, the difference in attainment in conventional school subjects becomes even larger. Character differences were not calculated.

The actual amount of superiority of the whole group of All-Year pupils is shown in Table 2 of this report. In view of the far greater reliability, scope, and general significance of the difference in educational age, the reader is advised to concentrate attention primarily upon it. This difference is 1.33 months, which is equal to the amount of increased ability which an average school gives an average child in 1 1/3 months. The superiority in educational age of the more continuous All-Year pupils is shown in Table 3. It is 2.16 months. The other educational differences are smaller, but since they were determined more to have a check upon special claims than to secure a comprehensive measure of educational status, they have been relatively neglected in the further interpretations of this report.

In view of the foregoing we can answer with much assurance the question: If a traditional school were substituted for every All-Year school would such a change promote the educational welfare of the pupils? The answer is NO. *The pupils in the All-Year schools are further advanced educationally than they would be if they had attended a Traditional school instead. Furthermore, the more the pupils in the All-Year schools have taken advantage of the opportunities offered by the All-Year schools, the greater is their superiority over comparable Traditional pupils.* Except for considerations of cost and administrative inconvenience, this answers the question so far as the elementary schools are concerned.

Is there any reason to suppose that the graduates of the All-Year elementary schools would be better equipped to succeed in high school if a Traditional type of school were substituted for every All-Year type of school? To attempt to arrive at an answer to this question by continuing the comparison between the All-Year pupils and an equivalent group of traditional pupils will either lead us into intricate reasoning or to an academic conclusion or both. When the graduates of the All-Year elementary schools arrive in high school they find themselves in competition not only with graduates from an equivalent Traditional group but also with graduates from all the Traditional schools, most of which have pupil populations of higher capacity for academic learning than those studied in this investigation. Even in the traditional schools studied many of the ablest pupils had to be eliminated in order to secure equivalence with the All-Year pupils. Reasonable inferences from the data of this investigation plus the evidence from Dr. Corson's study make it certain that the graduates from the All-Year schools have an average mental age and educational age below that of graduates of Traditional schools.

But this investigation has shown also that the All-Year type of school with its accompanying amount of extra time produces a greater total educational attainment than the Traditional type

of school operating on a comparable group of pupils. Then what explains the superiority of the graduates from Traditional schools?

Possibly the All-Year schools are graduating their pupils chronologically younger than the graduating age for the Traditional pupils. Dr. Corson's study has shown that the average age of graduation for the All-Year pupils is 168 months, and for the Traditional pupils is 170 months. Other things being equal, this would give the Traditional graduates a slight superiority, since merely this difference in chronological age will give them an advantage of about two months in mental age. But this investigation shows that the All-Year schools have given their pupils a sufficient superiority in educational age to balance their disadvantage in mental age, on the reasonable assumption that mental age and educational age make an approximately equal contribution to success in high school. Thus the average age of the All-Year pupils studied in this investigation is 140.6 months. The average age of entrance of pupils into the first grade of All-Year schools is 79 months, according to the study of Dr. Corson. The difference is 61.6 months. We have already seen that the All-Year pupils excelled the Traditional by 1.33 months of educational age. Thus the All-Year pupils have acquired an advantage of 1.33 months by attending the All-Year schools approximately 61.6 months. Now the entrance age of 79 months subtracted from the graduation age of 168 months gives 89 months. Hence, if 61.6 months produce a superiority of 1.33 months, 89 months should produce a superiority of approximately 1.8 educational months. Since the evidence collected in this investigation shows that the pupils who more fully elect the advantages offered by the All-Year schools are relatively more intelligent than those who do not, it is highly probable that the majority of the graduates from the All-Year schools are composed of this group. Now it was shown above that the superiority of this group over a comparable Traditional group was, not 1.33, but 2.16. Thus there may be more reason for basing the foregoing calculations upon 2.16 than 1.33. If this is done, the superiority of the All-Year pupils at the time of graduation becomes 3.1 educational months. These figures, 1.8 and 3.1, must be considered as approximate values only since not all the pupils studied will graduate. Clearly the inferiority of the All-Year pupils in mental age due to graduation two months younger is fully compensated for by this extra two or three months' educational age. Evidently we must look further before we can find an adequate explanation of the lower mental and educational ages of the graduates from All-Year schools.

This brings us to the real explanation. The All-Year schools have a pupil population that possesses a much lower capacity to learn things academic than does the pupil population in Newark's Traditional schools. This is the chief explanation for the superiority of the Traditional graduates. This superiority would imme-

diately disappear if All-Year pupils were compared only with a group of Traditional pupils who were strictly comparable on entrance into the first grade, except in so far as such a group would be artificially delayed in their progress through school, owing to their being mixed with brighter pupils, so that their graduation age would be above fourteen years, two months. We do not know the graduation age of such a Traditional group. If it were, say, fifteen years, two months, the excess educational age of the All-Year graduates would be insufficient to compensate for the consequent superior mental maturity of the Traditional pupils. Whether the relatively low capacity of All-Year pupils, as compared with all Traditional pupils, is due to heredity or unfortunate home and neighborhood conditions or a combination of both of these need not concern us here.

Let us enquire what the Traditional type of school would do to improve what is undoubtedly an unfortunate situation, if it were substituted for the present All-Year type. Judging by its achievement in neighboring Traditional schools, the Traditional type of school would not do any more than the All-Year type is now doing to alter the heredity or home conditions of the pupils. It would not give the pupils a higher educational status by any defined age. In fact, it would not do as well as the All-Year schools are now doing. It would graduate the pupils about two months older, but, as we have seen, this gain would be counter-balanced by an equal loss in educational age. Of course, the Traditional type of school *could*, and *might* hold the pupils in the elementary school longer and give them more education. But so could and, if deemed wise, so might the All-Year school, and the All-Year school would not have to hold them so long. The readiness with which pupils are held back or sent forward is subject to artificial control in accordance with any policy prescribed by the administrators of the school system. *In sum, the substitution of Traditional schools for All-Year schools would not solve the problem of inequality in ability of elementary school graduates, except by a retardation device equally available to the All-Year schools.*

Newark high schools, like the high schools in every other city, face a problem of dealing with elementary school graduates who are graduates in name only. And not all of these graduates come from the All-Year schools. This problem will not be solved so long as the conception prevails that a graduate is one who has passed through the eighth grade. Only when we conceive of a graduate as one who has attained a standard objectively measurable mental age or educational age or both will there be any hope for a solution. The graduation of pupils just because they have passed through eight grades instead of requiring them to demonstrate a standard ability, this, rather, than the type of school attended is the main cause of inequalities in ability to succeed in high school.

The most vital matter yet to be considered is that of cost. We have seen that the All-Year scchools have given their pupils

1.33 more months of educational age than the Traditional schools have given a comparable group of pupils. But in order to acquire this extra 1.33 months, these All-Year pupils have attended school 6.06 more months. Another way of saying this is, that while the All-Year schools have accomplished less per month, they have accomplished more in the total by utilizing vacation periods. The relatively more continuous All-Year pupils have acquired an extra educational attainment of 2.16 months, and to secure it they have attended school 7.51 more months. Thus the whole group of All-Year pupils had to attend school an extra 4½ months and the continuous All-Year pupils 3½ months in order to get an extra month of educational age. On the average then, this means one month extra ability for each four months of extra schooling.

The foregoing ratio of 1 to 4 is conservative. It is more probable that the ratio is 1 to 3 than that it is 1 to 5. It is possible, and some psychologists think it is probable, that any increase in educational age causes a slight if not equal change in mental age as measured by available intelligence tests. To the extent that this is true, the process of equating groups has operated to penalize the All-Year schools. Furthermore, though every effort was made to get the two groups equivalent in terms of the four bases already listed, a slight advantage remained with the traditional group. They are slightly older, and their social background is slightly superior. And, unfortunately, their superiority is most marked in those items of social background most likely to give them a significant advantage, namely, education of the mother, race, and the extent to which English is spoken in the home. But these differences are not large enough to alter materially the findings reported.

The question as to whether the excess gain is worth the excess cost cannot be answered without giving due consideration to many matters not dealt with in this phase of the study. Consequently, the final answer to the initial question stated at the beginning of this report properly belongs to those appointed to receive and study the reports of all the investigators.

PART IV

Report of Dr. Andrew T. Wylie, Presenting Data and Conclusions Pertaining to the Economic, Social, Hygienic and Lingual Conditions Affecting Pupils in the All-Year schools.

The population surveyed. The pupils considered in this report are the same individuals who are included in Dr. McCall's report on intelligence and school achievement tests; that is, all the pupils from 11 years, 0 months to and including 12 years, 6 months, in all 17 schools mentioned in Dr. McCall's report. These 17 schools have throughout the investigation been considered as two separate groups, divided as follows:

All-Year Group	*Traditional* (or 10 Months' Schools)
1. Abbington Ave.	1. Ann St.
2. Belmont Ave.	2. Burnet St.
3. Cleveland Junior High School	3. Central Ave.
4. Lafayette St.	4. Charlton St.
5. McKinley	5. Eighteenth Ave. (Milford)
6. Newton St.	6. Franklin
7. Webster St.	7. Morton St.
8. Wilson Ave.	8. Oliver St.
	9. Robert Treat

The test papers for certain pupils could not be considered in the investigation for the reason that they were incomplete or because certain other conditions had not been met with. In considering the question of social background it was decided to use the cases that conformed to the conditions laid down in Dr. McCall's report. Before "equating" (for an explanation of this term, see Dr. McCall's report) there were available 1,176 cases for the All-Year group, and 1,280 for the Traditional. After equating, there were left 1,171 cases for the All-Year group and 1,092 for the Traditional group; and these are the two populations covered by this report—a total of 2,266 pupils for the two types of schools.*

From this total of 2,266 cases there were next taken 531 for intensive study of the social background. These 531 were all obtained by the familiar process of "random sampling," that is, the papers were selected by chance as follows: After equating, from the lists of papers for each school, there were taken the 5th, 10th, 15th, etc., names in order. If the 5th case was not

* Dr. McCall had occasion to revise the number equated for the All-Year group from 1,174 to 1,140. However, the writer of this report had by that time largely completed the calculations involved in the investigation of the social background and for this reason did not think it necessary to revise his figures to conform exactly to the 1,140. Since the 1,140 cases are all included in the 1,174, for all practical purposes the two may be considered as one and the same group.

available, then the next case, as the 6th or 7th, was taken, and so on.

To these were added the first set in each list, the last set (with three exceptions), and the 66th, the 131st, and the 196th set, where these existed. This totaled 260 papers (or 22.14%) for the All-Year schools, and 271 (or 24.90%) for the Traditional, altogether not quite one paper out of every four. The reason for not tabulating the results of *all* of the 2,266 papers, was that the labor and expense would have been considerable, since more than 35 items would have to be entered on the summary sheets for each pupil. In dealing with large numbers, statisticians have learned that it is possible to save expense and labor by this method of random sampling and at the same time not sacrifice any great amount of accuracy in the final results.

There is given below a table which shows the exact number of cases considered in detail for each of the seventeen schools. A glance at this table will show that each school has been represented approximately in proportion to the total number of children examined and that no one school or district has been neglected or omitted.

All-Year Group

School	Cases
1. Abbington	35
2. Belmont	18
3. Cleveland	19
4. Lafayette	45
5. McKinley	52
6. Newton	36
7. Webster	25
8. Wilson	30
Total	260

Traditional Group

School	Cases
1. Ann	41
2. Burnet	22
3. Central	27
4. Charlton	22
5. Eighteenth	22
6. Franklin	36
7. Morton	26
8. Oliver	39
9. Robert Treat	36
Total	271

Method of gathering data. In order to obtain data from all of the 2,266 pupils, a list of simple questions was handed to the pupils upon the same day, December 10, 1925, upon which they were examined by Dr. McCall and his staff of more than one hundred examiners. A sample of the questionnaire is included in this report and will be commented upon in more detail later. The pupils were asked to indicate their answers by a method which involves the least possible amount of writing, and the examiners were instructed to read each question aloud to make sure that the pupils understood what they were to do.

It was desirable to get some idea of how far these answers made by the pupils to the various items of the questionnaire could be trusted—in other words to validate their replies. Since the actual number of homes that could be visited in order to check up these items was necessarily limited, a certain number were selected and a check-up made by the experienced case workers who were familiar with social and housing conditions in

Newark. The details of this check-up were arranged through the courtesy and cooperation of Miss J. Isabelle Sims, Assistant Secretary of the Newark Welfare Federation, who was also kind enough to make available much information already existing in the files of the Federation. Some of the details of this process of validation are still in progress and for this reason, a more detailed consideration will be given this question in a brief supplementary report on this phase, to be filed in the course of a few days.

SOCIAL BACKGROUND

The questionnaire. In his attempt to arrive at some quantitative estimate of the social background of each pupil the present investigator was obliged to improvise rather quickly some kind of social yardstick by which to measure or rate the quality of the home. The device adopted for this purpose was a questionnaire. Up to the present moment workers and social agencies have devised almost nothing in the way of scales or tests which may be applied to the home conditions of a pupil in the same way that various standardized tests and scales are made use of to measure his intelligence, his school achievement, his mechanical aptitude, or even (by the use of a building scale) to rate the quality of the physical plant of the school in which he is receiving instruction. A beginning in the rating of home conditions exists in the work of Chapman and Sims*, and of J. H. Williams†, and to these sources of information the writer turned for such help as he could find. He also received a number of helpful suggestions from the Nationality Survey‡ published in 1923, by the Board of Education of Newark, and has attempted, in part, so to word certain questions of the social background questionnaire, that the answers may be directly compared with that portion of the Monograph having to do with the nationality and language of the parents of pupils.

An examination of the questionnaire will show that it consists of 33 questions. Numbers 1 to 11 are taken bodily from the Chapman-Sims scale just referred to. These eleven questions had been tried out extensively by the authors and have been shown to have considerable value as an index of the Social Status. Questions 27 to 31 were derived from Monograph 11. The remainder of the questionnaire was added by the writer, the suggestions for the questions coming from various sources. It

* "The Quantitative Measurement of Certain Aspects of Socio-Economic Status," by J. Crosby Chapman and V. M. Sims, of the Department of Education, Yale University. See a description of this in the Journal of Educational Psychology, September, 1925, pp. 380-390.

† A Guide to the Grading of Homes, by J. H. Williams, Director of Research, Whittier State Schools. Bulletin No. 7 of the Department of Research, Whittier State School, Whittier, California (1918).

‡ Nationality and Age Grade Surveys in the Public Schools of Newark, N. J. Monograph No. 11, 1923.

will be seen that the answers to these various questions will provide us with a means of estimating the economic, cultural, hygienic, racial, and linguistic background of the pupils.

Scoring the questionnaire. It was necessary first of all to provide Dr. McCall with a numerical score or rating by means of which he could roughly estimate the social status of the pupils who were being examined by him with the various intelligence and achievement tests. In a perfectly standardized list of questions it would be possible to state definitely just how important each question of the 33 was with respect to the other 32 and to weigh the answers accordingly. Since, however, the exact value of each question could not be determined without considerable experiment and since the schedule of the survey called for an immediate report of the results to Dr. McCall, a simple method of scoring the questionnaire was adopted, based in part upon the published report of the Chapman-Sims scale and in part upon a common-sense judgment. This system of scoring follows:

(a) In scoring, omit questions 19, 23, 24, 25 and 26.

(b) Allow one point each if "Yes" is answer to questions 1, 3, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16, 17, and 18.

(c) Allow one point each if "No" is answered to questions 20 and 22.

(d) Allow one point if 125 or more is given for question 2; one point if 2 or more is given for question 4; one point if one or more is given for question 11. Deduct 1 point if more than 5 hours is answered for question 21.

(e) For questions 27, 28, and 29, if an English-speaking country is given, score one point for each. For questions 30 and 31, allow one point each if the answer English or American is given.

(f) If the number answered for question 32 is greater than that given for question 33, allow one point for the two questions. If the answers to 32 and 33 are the same, score zero. If 33 is greater than 32, deduct one point from the total score.

(g) The total possible score is 27.

The actual scoring by means of a Key is much simpler than this description and can be done rapidly. While a better system of scoring could be devised as a result of considerable experimentation, plus the results of this survey, this method is simple and answered the immediate and pressing need of the moment, which was to provide a means of directly comparing in a quantitative way the various items which together make up the social background of the pupils of the two types of schools. Stated in another way—the results of the questionnaire enabled one to compare directly the home conditions of pupils in the All-Year schools with those in the Traditional schools even though one might not in addition attempt to compare both types with homes elsewhere, or in other communities, or with some ideal or absolute concept of what a home should be.

The good manners test. As a supplement to the questionnaire there was added a short test on good manners. The items of

this test were furnished through the courtesy of Dr. H. Hartshorne, of the Institute of Educational Research, Teachers College, Columbia, and were taken from an unpublished study, the work of Miss C. J. Orr.

Regardless of the absolute value of the score a child might attain on the good manners test, this instrument offered yet another means of estimating the social background, since one could safely assume that manners, or the lack of them, are the result of home training and conditions as well as of formal instruction in school.

The results. The results of the questionnaire can be most easily grasped by rearranging the various items into groups and by comparing directly the kind and proportion of replies made by pupils in the All-Year schools with the Traditional. There are also given the proportion of papers which could not be scored (illegible, etc.) and the proportion which pupils failed to answer at all.

A. EDUCATIONAL BACKGROUND

Question 1. Did your mother attend high school?

	All-Year	*Traditional*
Yes	.119	.166
No	.846	.779
Not scorable	.008	.019
Omitted	.027	.037
	1.000	1.001

Question 7. Did your father attend high school?

	All-Year	*Traditional*
Yes	.185	.188
No	.758	.753
Not scorable	.008	.022
Omitted	.050	.037
	1 001	1 000

B. CULTURAL INFLUENCES WITHIN THE HOME

(These are also to a considerable extent economic indicators.)

Question 2. About how many books are there in your home?

	All-Year	*Traditional*
Average (in round numbers)	51 volumes	48 volumes
None	.108	.019
From 5 to 100 volumes	754	.786
From 101 to 500 volumes	.085	.096
Not scorable	.004	.000
Omitted	.050	.100
	1 001	1 001

Question 4. How many magazines do you take regularly in your home?

	All-Year	*Traditional*
Average	1.7	1 5
None	.369	321
One	.142	207
Two	.150	114
Three to 5	.158	181
More than 5	.100	063
Not scorable	.000	.000
Omitted	.081	.115
	1 000	1 001

Question 11. How many daily papers do you regularly take in your home?

	All-Year	*Traditional*
None	.138	.118
One	.404	.373
Two	.262	221
Three to six	.138	214
Not scorable	.000	011
Omitted	.058	063
	1.000	1 000

Question 3. Do you have a piano in your home?

	All-Year	*Traditional*
Yes	.327	.347
No	.631	.627
Not scorable	.008	.019
Omitted	035	007
	1 001	1.000

Question 10. Do you have a Victrola or Edison in your home?

	All-Year	*Traditional*
Yes	.504	.494
No	.381	.380
Not scorable	.015	.022
Omitted	100	103
	1 000	999

Question 17. Is there a radio in your home?

	All-Year	*Traditional*
Yes	.296	.314
No	.669	642
Not scorable	.023	.026
Omitted	.012	.019
	1 000	1.001

C. CULTURAL INFLUENCES OUTSIDE OF THE HOME

Question 18. Have you a card for the Public Library?

	All-Year	*Traditional*
Yes	.508	.491
No	.408	.406
Not scorable	.004	.041
Omitted	.081	.063
	1.001	1.001

(The rules of the Public Library do not permit a child to have a card of his own before he has reached the fifth grade in school. For this reason a certain proportion of the children examined were not entitled to a card. No account has been taken of this in the table above.)

Question 19. How many times have you been to the movies this last week?

	All-Year	*Traditional*
Average	1.1	1.2
Not any	.331	.280
Once	.315	.365
Twice	.123	.114
Three times	.050	.066
Four times	.031	.026
Five times	.015	.015
Six times	.031	.033
Not scorable	.000	.000
Omitted	.104	.100
	1.000	.999

(The wording of this question is somewhat ambiguous for the reason that the phrase "this last week" might be understood in more than one way. The question was asked on Thursday, December 10. A pupil might accordingly believe it to mean: "For the past seven days," "Since last Monday," "Since last Sunday," etc. This ambiguity does not, however, seem to have seriously impaired the real value of the question.)

Question 24. What clubs and societies do you belong to?

	All-Year	*Traditional*
Average number	.158	.295
Not any	.627	.332
One	.150	.266
Two	.004	.015
More than two	.000	.000
Not scorable	.019	.026
	1.000	1.001

(This proved to be a slightly difficult question to score for the reason that the statements of the pupils regarding the names of

various organizations were not always clear. Further, there was probably some doubt as to just what constituted a club or society.)

D. HYGIENIC CONDITIONS, INCLUDING HOUSING

(This section includes those items dealing with the facilities of the home for comfortable living according to modern standards (questions 8, 12, and 14; the degree of congestion of individuals comprising the household (questions 16, 32, and 33); and certain habits of personal hygiene (questions 13 and 11). Questions 8, 12, 14, 32, and 33 also directly indicate the economic status of the home and may be considered as supplementary to the information of section *E*, which follows this.)

Question 8. Is your house heated by a big furnace in the basement?

	All-Year	*Traditional*
Yes	.200	.233
No	.777	.731
Not scorable	.012	.015
Omitted	.012	.022
	1.001	1.001

Question 12. Is there a bathtub in your home?

	All-Year	*Traditional*
Yes	.523	.583
No	.462	.395
Not scorable	.015	.015
Omitted	.000	.007
	1.000	1.000

Question 14. Is there a good supply of running hot water at home?

	All-Year	*Traditional*
Yes	.573	.657
No	.419	.306
Not scorable	.004	.026
Omitted	.004	.011
	1.000	1.000

Question 16. Is there a room at home in which you can study without being disturbed?

	All-Year	*Traditional*
Yes	.685	.731
No	.308	.247
Not scorable	.004	.015
Omitted	.004	.007
	1.001	1.000

Question 32. How many rooms in your home?

Question 33. How many persons are there in your family who live at home, including yourself?

(The results of these two questions have been combined in order to show how "thickly" the various homes are populated. The following table was obtained by dividing for each case the number of persons per family by the number of rooms, the result being the number of persons per room. The higher this resulting number the higher, of course, will be the degree of congestion. Individual cases of extreme congestion should probably not be accepted without checking up.)

	All-Year	*Traditional*
Median	1.56	1.46 persons per room
Number of Persons per Room		
.0 to .4	004	.004
.5 " .9	142	.137
1.0 " 1.4	.331	.395
1.5 " 1.9	196	232
2.0 " 2.4	.165	.111
2.5 " 2.9	.085	066
3.0 " 3.4	.027	026
3.5 " 3.9	015	.000
4.0 " 4.4	.004	.004
4.5 " 4.9	000	000
5.0 " 5.4	000	004
Not scorable	.015	011
Omitted	015	.011
	.999	1.001

Question 13. Do you have a toothbrush of your own?

	All-Year	*Traditional*
Yes	.861	.878
No	.104	.078
Not scorable	.023	.015
Omitted	.012	.030
	1.000	1.001

Question 15. Do you sleep with your windows open?

	All-Year	*Traditional*
Yes	.846	.823
No	.142	.118
Not scorable	.004	.030
Omitted	.008	.030
	1 000	1 001

(Questions 13 and 15 indicate certain desirable hygienic habits which are practiced at home, but which are the probable result of direct instruction in school and by other agencies. Question 13 was purposely not worded, "Do you use a toothbrush every day," since this would probably suggest the desired answer too readily.)

E. INDICATORS OF ECONOMIC STATUS

(Questions 5 and 6 indicate economic status in somewhat the same way as do questions 3, 10, and 17 in Section B. The implications of questions 20, 21, 22, 23 are fairly plain, although some investigators have thought that the employment of the mother (question 22) need not necessarily lower the status of the household, but in some cases may raise it through the increased income which accrues. The possession of a telephone has also been considered as of special significance.)

Question 5. Do you have a telephone in your home?

	All-Year	*Traditional*
Yes	.258	.196
No	.727	.790
Not scorable	.004	.011
Omitted	.012	.004
	1 001	1 001

Question 6. Do you have an auto, other than a truck?

	All-Year	*Traditional*
Yes	.246	.225
No	.723	.760
Not scorable	.008	.000
Omitted	.023	.015
	1 000	1.000

Question 20. Do you work after school or on Saturdays for pay?

	All-Year	*Traditional*
Yes	.131	.144
No	.846	.823
Not scorable	.008	.022
Omitted	.015	.011
	1.000	1.000

Question 21. About how many hours each week do you work for pay?

	All-Year	*Traditional*
Not any	.404	.236
1 to 5	.115	.074
6 " 10	.019	.033
11 " 15	.019	.011
16 " 20	.000	.000
21 " 25	.027	.007
26 " 30	.000	004
31 " 35	.000	.000
36 " 40	.004	.004
Not scorable	.000	.000
Omitted	.412	.631
	1 000	1.000
Total proportion of all those who state the number of hours they work for pay	.184	.133

(It will be noted that there is a discrepancy between the above item and the proportion reported as working for pay in answer to question 20. In any case, information regarding the hours of work of pupils outside of school, especially where these seem excessive, should be accepted cautiously.)

Question 22. Does your mother go out to work regularly?

	All-Year	*Traditional*
Yes	.138	.144
No	.819	.808
Not scorable	.015	.019
Omitted	.027	.030
	.999	1.001

Question 23. What is your father's occupation?

(This is an important question, since one's occupation does much to determine one's social and economic status. The answers given by pupils were in many cases so vague that it was extremely difficult to classify them into an orderly scheme, and for that reason the results of this question are not so authoritative as might be wished. The general drift, however, is fairly well indicated in the following table. The classification of occupation does not pretend to be a formal one, but was adopted after a careful reading of the actual replies given by the pupils. For this reason it has a certain value, since it was adjusted to fit the needs of this particular problem. There is probably a certain amount of overlapping and even improper classification, but in spite of this a fairly good impression of the general situation results.)

Class	*All-Year*	*Traditional*
1. Professional	.004	007
2. Owner of business; contractor; wholesaler; foreman; builder	.023	044
3. Office or clerical worker	.012	.004
4. Worker in store or restaurant; salesman; storekeeper	.077	103
5. Worker in factory or shop	042	.055
6. Skilled worker, or some definite trade or job specified requiring special skill	285	.288
7. Unskilled worker	085	055
8. Worker, but exact classification cannot be given	208	188
9. Does not work	023	019
10. No father; dead	027	033
11. Not scorable	089	059
12. Omitted	.127	144
	1.002	.999

(The following points seem worth noting: The small proportion of professional, office, and clerical workers (classes 1 and 3). The somewhat larger proportion in the Traditional group classed as "Owners," etc. (class 2). The small proportion who could be definitely classed as factory workers (class 5). The fairly general agreement of both All-Year and Traditional respecting classes 5, 6, 7, 8, 9, 10, and 12.)

F. LINGUISTIC DIFFERENCES

Question 9. Is English the only language spoken in your home?

	All-Year	*Traditional*
Yes	.181	.214
No	769	.734
Not scorable	.023	.022
Omitted	.027	.030
	1.000	1.000

Question 30. What language does your mother speak at home most of the time?

	All-Year	*Traditional*	*All Newark*
English	.308	.402	.5381
Italian	.496	.277	2326
Hebrew (or Jewish)	.035	.111	1178
Slavic	.096	.066	.0688
Others	.015	.044	.0427
Not scorable	.023	.019	.....
Omitted	.027	.081	.....
	1.000	1.000	1.0000

(For comparison with the results obtained in the study there have been given in the third column above the results reported in "Monograph 11," page 12, for the entire school system of Newark, April 15, 1922.)

Question 31. What language does your Father speak at home most of the time?

	All-Year	*Traditional*
English	.319	.395
Italian	.465	.273
Hebrew (or Jewish)	.031	.118
Slavic	.073	.041
Others	.012	.033
Not scorable	.035	.033
Omitted	.065	.107
	1 000	1.000

(Question 31 serves as a check upon question 30, since the most probable condition is that both parents will speak the same language in the home.)

G. RACIAL DIFFERENCES

Question 27. In what country were you born?

	All-Year	*Traditional*
United States	.927	.934
Italy	.046	.015
Slavic countries	.000	.007
Other countries	.008	.011
Not scorable	.008	.011
Omitted	.012	.022
	1.001	1.000

(In mimeographing this question the word "country" was typed indistinctly on some of the papers. However, this does not seem to have had any serious effect on the answers.)

Question 28. In what country was your father born?

	All-Year	*Traditional*
United States	127	.181
Italy	631	413
Slavic countries	.123	.196
Other countries	.069	115
Not scorable	.019	.022
Omitted	.031	.074
	1 000	1 001

Question 29. In what country was your mother born?

	All Year	*Traditional*
United States	.142	.207
Italy	612	.387
Slavic countries	.096	.173
Other countries	.108	140
Not scorable	.015	022
Omitted	.027	070
	1.000	999

Proportion of White and Colored

	All-Year	*Traditional*
White	.977	.952
Colored	.008	026
Not scorable	000	.000
Omitted	015	.022
	1 000	1.000

(The proportion of Colored pupils who were included in this survey is very much smaller than the proportion stated in "Monograph No. 11," page 11, for all Newark schools. The proportion stated in the Monograph for "per cent of pupils whose fathers were born in United States (Colored)" is given at 4.4%. How greatly this proportion has increased since April 15, 1922, is not considered now for the reason that we are here contrasting only the group of eight All-Year schools with the nine Traditional schools already specified. It is evident from the table above that the proportion of Colored pupils who appeared for testing was so small as to be negligible as a separate factor.

As a check upon the number of White and Colored pupils *all* the replies (not a random sampling) were counted for three schools with the following resulting proportion for Colored:

	Proportion	*No. of Cases (White and Colored)*
Belmont	.050	79
Morton	.126	127
Oliver	.039	180

In some cases where the pupil had not stated "White" or "Colored" but where other evidence on the paper indicated the race clearly, the entry was made accordingly. This was not done for doubtful cases, however.

H. GOOD MANNERS TEST

The highest possible score for this test is 15 points, with a range of scores extending from positive 15 through zero to negative 15. This range is explained by the fact that this is a "true-false" type of test, the net score being the number right minus the number wrong.

When we come to compare the median scores made on this test by the two groups of schools we find them to be almost identical. That for the All-Year schools is .354; and that for the Traditional .343. We may interpret this to mean that on the average there is nothing much to choose between the two groups in the matter of their knowledge of simple questions of good manners as measured by this particular test. We should not attempt, however, to answer the more difficult questions of how they both compare with an average American-bred child in a good community.

SUMMARY

The arrangement of the preceding items and questions has been such that comparisons could be easily made between the two types of schools as one progresses through the report.

If we take up the different items of the questionnaire, group by group, we may say:

(1) That the high school experience of the fathers for both groups is pretty much alike, while the mothers in the Traditional group show an advantage—rather less than half as many more having attended high school than in the All-Year group.

(2) In the matter of books in the home, magazines, daily papers, pianos, Victrolas, Edisons, radios, library cards, and attendance at movies there is no significant difference between the two groups.

(3) Judged by the clubs and societies of which they are members, pupils of the Traditional group have, roughly, double the number of social contacts of those in the All-Year group.

(4) In facilities for comfortable and hygienic living, such as furnaces, bathtubs and hot water the Traditional group have a constant advantage though not an extremely large one. The difference in the median number of persons per room is small—.10; but there is much overcrowding in both groups, as shown by the table on page 15.

In habits of personal hygiene, judged by toothbrushes and open windows, the groups are almost equal.

(5) Economically the All-Year group would seem to be rather

better off judged by the possession of telephones and automobiles. However, practically the same proportion of pupils and mothers work, although there may be some doubt as to the accuracy of the first of the two items.

(6) The Traditional schools show an advantage linguistically, since about one-sixth more of the pupils report English as the only language spoken and about one-third more report that the mother speaks English most of the time. About one-fourth more report English as the home language of the father.

This matter of language in the home is very important, and with the question of country of birth has been heavily weighted in the questionnaire, since six points in all depend upon these two classes of items.

(7) Both groups show almost the same proportion of pupils born in the United States.

Both groups show a very low percentage of native born fathers and mothers—only about one in eight to about one in five having been born in the United States. However, the Traditional schools have a decided advantage here—when compared with the All-Year schools, roughly half as many more parents born in this country.

The preponderance of the Italian element is very evident, especially in the All-Year schools, where more than six parents out of ten were born in Italy.

The Negro as a factor in this survey does not appear in sufficient numbers to weigh results to any important extent. This does *not* mean, however, that he is a negligible quantity in the problem of the Newark schools as a whole.

(1)

(The examiner will read each question aloud and make sure that pupils understand what they are to do)

Name . . Date ..
Grade School . Boy or Girl .
Home address .

Draw a ring around the correct answer to each question.

EXAMPLE: Is Christmas Day the 25th of December (Yes) No

1. Did your mother attend high school? Yes No
2. About how many books are there in your home?
   5 10 25 50 75 100 125 150 175
   200 300 400 500 or more
3. Do you have a piano in your home? Yes No
4. How many magazines do you take regularly in your home?
   None 1 2 3 4 5 6
5. Do you have a telephone in your home? Yes No
6. Do you have an auto, other than a truck? Yes No

7. Did your father attend high school? Yes No
8. Is your house heated by a big furnace in the basement? Yes No
9. Is English the only language spoken in your home? Yes No
10. Do you have a Victrola or Edison in your home? Yes No
11. How many daily papers do you regularly take in your home?
    1 2 3 4
12. Is there a bathtub in your home? Yes No
13. Do you have a toothbrush of your own? Yes No
14. Is there a good supply of running hot water at home? Yes No
15. Do you sleep with your window open? Yes No
16. Is there a room at home in which you can study by yourself without being disturbed? Yes No
17. Is there a radio in your home? Yes No
18. Have you a card for the Public Library? Yes No
19. How many times have you been to the movies this last week?
    0 1 2 3 4 5 6
20. Do you work after school or on Saturdays for pay? Yes No
21. About how many hours each week do you work for pay?
    1 to 5 6 to 10 11 to 15
    16 to 20 21 to 25
22. Does your mother go out to work regularly? Yes No
23. What is your father's occupation? . . . . .
24. What clubs and societies do you belong to? . . . . . .
25. What do you want to do when you leave school? . . . . . .
26. Is there anything else that you wish to tell about yourself? If so, write it here..... ....

Name..... .. Race.. White or Colored
Grade..... .... School . . . .

27. In what country were you born? . . . . . .
28. In what country was your father born? . . . . . .
29. In what country was your mother born? .
30. What language does your mother speak at home most of the time? ....
31. What language does your father speak at home most of the time? . . . . . .
32. How many rooms in your home? . . . . . .
33. How many persons are there in your family who live at home, including yourself? .. ..

GOOD MANNERS TEST

The statements below are true or false. If true, draw a line around the word *True* in front of the statement. If false, draw a line around the word *False*.

EXAMPLE: (True) False. Food should not be eaten on the street.

Begin here:

(True False) 1. When eating bread and butter spread the whole slice of bread before eating any of it.

(True False) 2. In helping yourself to sugar always use your own spoon.

(True False) 3. Food may be carried to the mouth with either a knife or a fork.

(True False) 4. It is impolite to make a noise when drinking liquids.

(True False) 5. Soup should be taken from the side of the spoon.

(True False) 6. It is more important to be neat at school than at home.

(True False) 7. If obliged to leave the table before the meal is over, say nothing but quietly push back the chair and leave.

(True False) 8. One should not read letters addressed to another person unless requested to do so.

(True False) 9. When yawning, make no attempt to suppress it by covering the mouth.

(True False) 10. We should be more careful of our own books than borrowed ones.

(True False) 11. A young lady should not sit down before all older ladies are seated.

(True False) 12. One should give attention to another who is talking to him whether he is interested or not.

(True False) 13. In public meetings when a speaker is addressing an audience, it is not courteous to turn your head when some one enters the room.

(True False) 14. If you are anxious to leave the theatre immediately after the play, you may begin to put on your wraps as the last act of the play draws toward a close.

(True False) 15. On the street a gentleman always takes the outside of the walk.

PART V

Report of R. K. Atkinson, Presenting Data and Conclusions Pertaining to Playground Facilities in the All-Year Schools of Newark, N. J.

PLAYGROUND FACILITIES IN THE ALL-YEAR SCHOOLS OF NEWARK, N. J.

By R. K. Atkinson

The Problem

The nine All-Year schools of the city of Newark, New Jersey, attempt to adapt the school to the needs of children in the congested sections of a large city. This section of the study of these schools deals with their facilities for meeting their responsibility for play and physical education activities during the school hours and also in the free time of the children whom they serve.

The districts surrounding these schools present some variations, but are alike in the fact that all show a considerable congestion of population with the usual accompanying social problems and abnormal living conditions, creating situations which for child life are anything but desirable. I do not recall having seen in the neighborhood of any one of these schools a single home yard or vacant lot which was being used or could be used for play purposes except in one case, where an excavation had been made behind a row of billboards, evidently in preparation for the erection of a building, and in this space, eight or ten feet below the surface of the road, on a plot probably 60 by 80 feet, a game was in progress. Every other bit of play or recreational activity which was observed was in a school, a school yard or playground, or upon the street. We must think, therefore, of these All-Year schools not simply as concerned with the formal education of the children, but as responsible for providing safety, space and leadership for the perfectly normal and necessary physical activities of 17,000 growing children.

This problem is accentuated in the city of Newark by the fact that as a matter of policy which has been in vogue for some years the Board of Education has assumed the responsibility for the administration of an important part of the recreation system of the city in addition to its formal educational functions. The city park department is almost entirely concerned with caring for a few small park areas whose recreational use is negligible, and the Essex County Park Commission, while furnishing larger areas adapted to organized recreation and team games and contributing several intensively used playgrounds which will be noted in this report, cannot be expected to solve the entire problem of the neighborhood play areas or of adequate play administration. This leaves this particular problem squarely up to the

school authorities, and gives them a responsibility for the child life of the city not only during school hours but also in free time after school and during vacations. In a great many cities school men may look to other agencies of the municipal government for solution of the problems of community and neighborhood play, but in Newark, regardless of the future of the All-Year school plan, the question of facilities for play for the children must be considered in its broadest community aspect, by the Board of Education.

Method

With the above considerations in mind, the nine schools concerned in this study were visited one by one, and their facilities, both within the building itself and in the school yard, were evaluated, and in every instance the immediate neighborhood of the school, covering the accepted effective range of influence of such an institution, was looked over rather carefully.

Dimensions, while not measured with a tape measure, were stepped off, often with the assistance of some member of the school staff, and while total areas are not absolutely accurate, the figures given herewith will not vary much from the actual areas which exist.

In several cases it will be noted that there is a responsibility for larger numbers of children than those who are actually enrolled in the school, owing to the fact that the school under consideration is caring for much less than the total child population of the section because of the presence of parochial schools nearby whose outdoor arenas are fully as meagre as those which are provided at the public schools. While the formal education of parochial school children is not under the direct control of the Board of Education, the provision of play-space in out-of-school hours for these children is a responsibility of the city. No careful and discriminating study of this phase of the problem as it affects the parochial school was possible, but in two outstanding instances it enters into the recommendations with respect to the neighborhoods concerned.

No study was made of the racial components in the various areas. It has been pointed out in other reports concerning these schools that almost without exception they serve school populations which are derived from the more recent immigrants. This in itself is a very interesting study and one which might well be pursued as a sociological problem. In one instance there has been an almost entire change in the racial complexion of a school population of 1,700 children within the last seven years; the change in this instance being from an almost entirely Jewish clientele to one in which Negroes, Polish and several Balkan nationalities predominate. Children of all nationalities, however, are much alike in their reaction to play activities, and in our own particular field a study of racial components is not necessary.

No consideration has been given to administrative or curricular details except in instances where such matters are inseparable from a consideration of adequacy of facilities.

Norms.

A study of play-space adequacy involves a problem which has been given but little definite consideration until recently. We have, however, within the last few years gone at this problem in a very real fashion, and some generally accepted *minimum* requirements have been worked out. The subject of space requirements for indoor activities has been given careful consideration and very definite research. The best practice of many places and of many administrators was summed up in a series of conferences under the direction of the New York City Board of Education, and in July of 1925 a recommendation made by those who were engaged in these conferences was adopted by the school men, physical educators and architects and approved by the Board of Superintendents. This action established the following formula as the *minimum* floor space requirement for gymnasia and playrooms:

$$\frac{\text{Seating capacity of school}}{\text{Number of periods in school day}} \times 30 \text{ square feet} = \text{floor space required}$$

This formula is based on the assumption that every child shall have one play period in the school day. The State of New Jersey has by statute established a definite time requirement for physical education in the public schools of the state, specifying for them an aggregate of 2½ hours of activities in each week, which are a part of the regular curriculum of the school and applicable to all grades except kindergarten. Interpreted in terms of a five-day week this means 30 minutes per day. I discovered in the All-Year schools certain variations, the number of periods running from 8 to 12. The prevailing thought on the subject of vigorous big-muscle activities for growing children would seem to require that more than 1/12 of the time of the child should be given to this sort of activity, and for this reason as well as for the sake of striking an average between the various schools a divisor of 10 was adopted in applying this formula to the schools under consideration.

In a number of the schools, play-rooms or inner courts are used for games and physical activities, which in some instances are deficient in lighting and ventilation, while in many cases posts or other obstructions are present. These considerations, together with the absence of equipment, has suggested in such instances the rating of these rooms at less than their actual measured area, one-half full value generally being accorded such space.

The space requirements for outdoor play have also been worked out in a very thoroughgoing manner within recent months. The City of Cleveland, in its school survey some years ago, gave a number of formulas applicable to various age groups in the school population, and fixed upon an average minimum adequacy for children 6 to 12 years of age of approximately 100 square feet per child actually present upon the playground.

At the Fourteenth National Conference on City Planning held in Springfield, Mass., in 1922, Mr. H. V. Hubbard presented a report

based upon the study of actual conditions in a number of cities, in which he said that a playground for children of 5 to 12 should be of a minimum size of 3,000 square feet, with at least 140 square feet of space per child actually present upon the playground. These standards were discussed by playground executives at the Annual Congress of the Playground and Recreation Association of America at Springfield, Ill., in the fall of 1924, the consensus of opinion being that such a standard would not provide adequate space.

The most comprehensive study of this matter has, however, been under way during the last three years under the direction of the Section on Social Studies of the Regional Plan of New York City and Its Environs. The field workers in this city planning group have evaluated all available reports from other cities and have made some intensive studies in typical playgrounds in New York City, choosing areas of various types with respect to the congestion of child population. In an unpublished report dated November, 1925, figures are given of the actual use of playgrounds studied at intervals during a period of several months. This study showed figures running all the way from conditions classed as "overcrowded," where 74 square feet per child actually present upon the playground were discovered, and "comfortable maximum" attendance, where 108 square feet per child were found. The average actual space used was 92 square feet per child. This figure was later checked by estimates of the numbers who could comfortably play upon apparatus and those who could play the most common games in open spaces, and the result was found, by this theoretical check, to be 93 square feet per child.

Both of the above figures were determined, however, for those playgrounds where approximately 60% of the children were making use of the swings, slides, see-saws and other types of apparatus. It is recognized by playground technicians that apparatus must not occupy too large a proportion of space upon a playground, but that in congested areas, where large space is not available, corners, side yards and small areas will yield a much larger degree of usefulness if they are equipped with these facilities which are so attractive to the children.

In discussing playground adequacy we must also take into account the effective range of the playground, or, in other words, how far will the drawing power of the playground be exerted, and of all the children within this effective range, how many must be cared for by the playground at one time. In those sections of Manhattan considered in the study referred to above, it was noted that of all children found upon the playgrounds during the time when a large number of careful studies were made, 54% came from the first block, 16% from the second block, 12% from the third block, leaving but 13% of the total attendance to come from the 4th, 5th and 6th blocks and but 5% from a greater distance. The report mentioned above states:

"From studies made in recreation surveys throughout the country and in connection with the playground adequacy studies made for the New York City and Regional Plan, it has been fairly definitely determined that . . . the attendance from the first three blocks surrounding the playground usually constitutes about 80% of the total for the usual play district of five or six blocks radius. Therefore, if playgrounds are placed closer together, as they should be in an adequate system, and each public school, which is the normal place of daily assemblage for the children, has an attractive playground open for use after school hours, we have concluded that it is reasonable to expect that at least one-quarter of the child population would be most of the time using these play facilities. Hence, in fixing a standard for determining playground adequacy it was decided that we should plan sufficient playground space for one-quarter of the child population between the ages of five and fifteen years. On the basis of 100 square feet for each child playing, 25 square feet of playground space would be required for each child in the total child population that is to be served by a given play center."

Organized teams, older children from 12 to 15 and similar groups, will go greater distances for specialized types of activity such as baseball games, skating, field days and all such group activities, but for the normal play needs which are a daily requisite for child life in the city the playground must be placed with respect to the population just about as the school is located. Parents today, even in a congested city, are no different from the parents of previous generations in their desire to have their children play near home. The neighborhood playground, especially that one which is a part of the school plant, will take care of about the same population that the school takes care of, excepting, of course, in those instances where for after-school play the public school playground must take into account the needs of certain children from the parochial schools.

Taking all these facts into account, and anticipating a recommendation in this report that certain types of equipment be provided in slightly larger measure than they are now found upon the Newark playgrounds, our formula for minimum outdoor space requirements for the children is

$$\frac{\text{School population}}{4} \times 100 \text{ square feet} = \text{Playground adequacy}$$

Facts About Newark All-Year Schools

With these norms in mind we are ready to take up the conditions in detail as they affect each of the schools. In every instance the enrollment given is that of November, 1925.

I. ALL-YEAR SCHOOLS OF THE TRADITIONAL TYPE

In this group of schools, adhering rather closely to the Traditional courses of instruction, but adapting the curriculum to the four-term plan, with physical education and play activities for every child every day, are the Newton Street, Webster Street and Belmont Avenue schools.

1. *Newton Street School.* Enrollment 1,727.

Indoor Facilities:

The gymnasium, 54 x 72, contains 3,900 square feet, and there are two play-rooms or courts with approximately 2,300 and 4,150 square feet, respectively, giving a total of 6,450 square feet. Giving to the gymnasium its full adequacy and to the play-rooms a rating of one-half and applying our formula, we find that the usable indoor space (7,125 square feet) at the Newton Street school on the basis of a ten-period day is well above the minimum requirement.

$$\frac{1{,}727}{10} \times 30 = 5{,}181 \text{ square feet.}$$

Outdoor Facilities:

The outdoor facilities at Newton Street school are in very marked contrast to those which are found indoors. On the south side of the school is about 5,000 square feet of space, only about 3,400 square feet of which is useful for active play, the remainder being in small, narrow areas adapted only to types of activity that require very little space. On the north side of the building is a long, irregular-shaped yard, really two triangles, with a total area of about 9,000 square feet, but not so as to be used to very good advantage. We cannot allow full space value to these areas, yet this total of 14,000 square feet, even if in one open tract, would be entirely inadequate. Applying our formula, we find that slightly over 1,700 children should have somewhere in the neighborhood of 43,000 square feet of playground; 14,000 square feet is less than one-third of this.

There is adjacent to this school on the south, a tenement house which occupies about 15,000 square feet of space. The acquisition of this property would add to the 5,000 feet on that side of the building some land which would more than double, from the standpoint of actual use, the present outdoor adequacy of this school plant.

There is also at the Newton Street school a roof which at one time was used for play activities and which provides in the neighborhood of 8,000 square feet of space. There are many administrative and structural problems involved in the use of the roofs of school buildings, and a roof can never be entirely a substitute for playgrounds, but certain activities can be carried on there very effectively, and the use of this and the roofs of other school buildings should not be ignored in an attempt to work out plans for the best use of the school plant.

2. *Webster Street School.* Enrollment 1,416.

Indoor Facilities:

The gymnasium, 60 x 45, has an area of approximately 2,700 square feet. There are three play-rooms having 1,200, 768 and 1,200 square feet respectively, a total of 3,170 square feet. Applying our formula and giving the gymnasium full adequancy and the play-rooms half, we find that we have about 140 square feet over the absolute minimum of adequacy. This, however, meets the needs of the particular situation very effectively.

Outdoor Facilities:

The Webster Street school comes nearest of any of the nine schools which were visited to having sufficient outdoor space. There is a small, unequipped play area in front of the school of about 3,000 square feet, which with a little well-chosen equipment would serve excellently for small children, while in the rear there is a large playground which, when it is completed by the tearing out of a building which is now being demolished, will give 22,000 square feet of space. Here is a total of 25,000 square feet of space to meet the needs of slightly over 1,400 children. Our formula would require for the school enrollment 35,400 square feet, but with the provision of a little more play apparatus so placed as not to interfere with the use of the large open spaces for group and organized games we have here an excellent playground and one which approaches adequacy.

3. *Belmont Avenue School.* Enrollment 1,700.

Indoor Facilities:

The gymnasium contains 3,600 square feet of space and there are three inner courts with 2,150, 1,300 and 750 square feet respectively. Allowing the gymnasium space full value and the play-rooms one-half value gives us 5,700 square feet for the use of 1,700 children, which is 600 feet over the minimum of adequacy.

Outdoor Facilities:

When we come to the outdoor facilities, however, we find one of the worst situations in the entire school system, with the responsibility for a highly congested area of the city. The school yard is really no yard at all, an inner court, reached only from the building. Surrounded as it is by the buildings, and with considerable slope and poor surfacing, its 6,000 square feet allow relatively little effective use.

Immediately north of the school and west of the present yard, running through to Belmont Avenue, is a property containing about 5,000 square feet which should be acquired at once. I was told that this had been considered, but that the bottling works lying to the north of the school was making use of a well upon this property and no deed would be given except one which allowed the use of this well. This does not present an insurmountable problem. Some plan such as a vaulted underground passageway might be devised and the use of the well continued, so that the addition of the 5,000 square

feet to the present playground and the grading of this surface might give this school about 11,000 square feet out-of-doors and allow access to the yard directly from the street, an important consideration for community use of a playground. With this addition we would have about one fourth of the space required by this school population.

A study of this neighborhood, with two other large schools, with which this study is not concerned, within just a few blocks of this plant, the social and play interests of whose children interlock with those of the children who attend this school, reveals one of the most striking recreational problems in the City of Newark at the present moment. Across the street from one of these other schools there is a small, unequipped playground recently acquired, which, when fully equipped, will probably be about one-half large enough to meet the needs of that particular school population. A broad conception of the problem of providing recreational facilities in this highly congested section of Newark would seem to urge not only the immediate acquisition of the small space mentioned above, but also the condemnation and securing at the earliest possible moment of the entire remainder of the block north of the Belmont Avenue school. Only one of the buildings upon this block is of a permanent nature or of any great value, and it, a bottling plant, is of relatively cheap construction. This land should be thrown open to the use of the children of this section of the city at the earliest possible moment, while the smaller tract should be acquired at once in order that the Belmont Avenue school may immediately measure up to at least 25% adequacy in its outdoor facilities.

II. ALL-YEAR SCHOOLS OF THE ALTERNATING TYPE

The schools of this type differ from those of the Traditional type in the arrangement of the curriculum, which seems to be arranged to provide for an equal division of time between formal subjects and manual and physical activities. I found in at least one instance that a "work-study-play" school in reality gave its children less time for play than some schools of the traditional type. The passing of children from one room to another every half hour constitutes something of a relaxation from their manual work and study, but passing along the halls provides none of the pedagogical values of play and should not be classified as such. Since the school day in these schools is slightly longer there should be more rather than less play. It is true that the manual activities contain many elements identical with those which are found in the physical training and play program, but the conception of this type of school is one which give fullest recognition to the social training ideals of organized play, and therefore children in the alternating schools should certainly not be denied their full quota of play. The schools in this group are the Abington Avenue, Lafayette Street, McKinley and Wilson Avenue schools.

1. *Abington Avenue School.* Enrollment 1,834.

Indoor Facilities:

There are two gymnasiums, each containing 2,200 square feet of

space. Our formula would call for 5,500 square feet of space for the enrollment of this school, but here are two well-equipped gymnasiums which are in use constantly, and this fact, together with the consideration that a number of the children in this school are in the ungraded class, who are cared for in the excellent quarters provided for them on the top floor of this school, reduces this problem somewhat and gives us so nearly full adequacy that we need give little further consideration to the indoor facilities.

Outdoor Facilities:

Out-of-doors we find three play spaces of about equal size and containing a total of approximately 10,000 square feet. One of these, an inner court, seems to be little used. It is about 50 x 70 and could be used to good advantage for highly organized games of about the same sort that are used in the gymnasium. The two other outdoor spaces are long, narrow yards, each a little over 100 feet long but only 30 feet wide, which restricts their best use for play. Immediately north of the school are several residence buildings which should be acquired for immediate addition to this school property. This plot, running through from 6th Street to 7th Street and facing 110 feet on 6th Street and about 30 feet on 7th Street, would add a little over 15,000 square feet to the playground and form with the 6,500 square feet in the present play space north of the school one single tract of nearly 22,000 square feet, which with the 3,500 feet in the inner court totals 25,500 square feet of the 45,800 that full adequacy would require.

The neighborhood of the Abington Avenue school is rather surprising. One would expect, on looking at a map of Newark, to find in the northwest corner of the city much less congestion of population than is actually found there. Here is a section occupied almost entirely by people of foreign birth, living in closely built wooden tenements. Land in this section will never be less valuable than it is now, and this excellent school plant should be immediately made more useful by the addition of this land which would bring its playground adequacy up to slightly over 60%.

One would think by a glance at the map that Branch Brook Park would do something toward the solution of the problem presented by this school, but the nearest place in the park is silghtly more than four blocks from the school, which rules it out of consideration as meeting a neighborhood playground need even if the parts of this park set aside as playgrounds were in this middle section instead of well down at the south end of the park a mile away. The big new public school stadium is but a few blocks from this school, but I was told that it is not used by this school for play and is available only in case some team in the school wishes to use it for a formal athletic contest.

2. *Lafayette Street School.* Enrollment 2,070.

Indoor Facilities:

The gymnasium is 60 x 45 feet in the clear, and there is some

additional space under the galleries which is not entirely unused, giving approximately 3,000 square feet for the gymnasium, and there are two play-rooms, each having about 1,500 square feet of space. These play-rooms are clear and free of obstruction, and with both of them in use, Lafayette Street school, with 2,070 children, has a full measure of adequacy in its indoor facilities. I was told, however, that it is planned to take the north play-room in the near future for use as a classroom. Administrative details and the number of persons on the physical education staff must be taken into account in determining whether or not this should be done. If it is decided to do so, the indoor play space is running dangerously close to inadequacy. The roof of this building contains about 9,000 square feet of space and is not being used at all. For certain of the activities it would serve excellently and release the north play-room for classroom use.

Outdoor Facilities:

The recently acquired playground at the north of the Lafayette Street school contains approximately 27,000 square feet, slightly over one-half the space necessary for the population of this school. The equipment of this playground is now under consideration, and, recognizing that it is only about one-half as large as it should be, I would suggest that great care be exercised in selecting and locating this equipment.

I was told that preliminary study of the situation seemed to render it inadvisable to use the toilet facilities on the lower floor of the school in connection with this playground. If this is true, then a certain amount of this very valuable space will have to be taken up for a shelter house, which should be considered only in case the use of facilities within the school should prove absolutely impossible.

To make this playground of the greatest possible use, a considerable amount of equipment will have to be installed, but this must be done in such a way as not to interfere with the use of games requiring considerable open space.

None of these problems, however, is insurmountable, and if they are worked out with a great deal of care and due regard for the largest possible use both as a school and a community playground Lafayette Street school will rank well with the best equipped of this group of schools.

3. *McKinley School.* Enrollment 2,253.

Indoor Facilities:

In the old building of McKinley School there are two indoor play courts with 750 and 1,500 square feet respectively. Neither of these should be allowed more than one-half rating. The gymnasium in the new building is excellent, containing about 4,000 square feet, and there is also a ground floor play-room which is unobstructed and has a high ceiling, giving it about 2,200 square feet in the clear. This gives us a total of 7,200 square feet for the 2,253 children, which is about 15% over the minimum adequacy.

Outdoor Facilities:

The outdoor space at this school is good, but far from adequate. There is a small yard just south of the old building, facing on Factory Street, which is 30 x 100 feet. To the east and rear of the new building there is an excellent playground containing a little over 30,500 square feet. Applying our formula of adequacy to the 33,500 square feet thus provided we find that we should have for 2,250 children 50,000 square feet, giving us 60% of adequacy for this school yard.

There is a very difficult administrative problem in connection with the carrying on of this school in two plants with no connection between them except by way of the street. The property facing about 100 feet on Factory Street between these two buildings and about 100 feet deep should be acquired at once, not only for the sake of adding 10,000 square feet to the play area, but also to provide a passageway through the yard between the two buildings. This 10,000 square feet, added to the 3,000 square feet in the yard south of the old school, would make an excellent playground for small children, which could be equipped as a most valuable and highly-needed community asset and would help to solve many administrative difficulties in the larger playground.

McKinley School is located in one of the most congested sections which was visited. Just east of the old school is a parochial school which is without recreational facilities and whose children must be taken into account as a part of the play problem of this school. Some relief is gained in this neighborhood by the provision which is made in the south end of Branch Brook Park, but the congestion is so great and the play needs are so apparent that the provision made by the Essex County Park Commission does not relieve a situation which calls for really adequate handling by this school. In none of the schools visited was there discovered so large a number of children upon the streets immediately around the school, and in fact this school, leaving out of account the children in the parochial school, who presumably all come from the same neighborhood, has a 10% larger enrollment than the next largest of the elementary schools with which this study is concerned.

No single problem which was faced impressed me as more vital for immediate handling than this one of securing additional space at McKinley School, both to provide more space and to secure more effective administrative control in the school plant.

4. *Wilson Avenue School.* Enrollment 1899.

Indoor Facilities:

The gymnasium contains about 4,300 square feet and a running track which is the equivalent of about another thousand square feet. The new gymnasium, while it has but little equipment, provides 2,100 square feet of space with high ceilings and should have full adequacy rating, so that we have a total of approximately 7,500 square feet of space for 1,899 children, which is 10% more than minimum adequacy for 1,900 children. The basement rooms in the

old school are not taken into account. I was not told whether they are ever used for play activities, but ventilation and lighting are so bad that these rooms should not be considered in this connection.

Outdoor Facilities:

Here is a most unhappy situation. There are four small parcels of playground with approximately 6,000, 4,000, 10,000 and 6,000 square feet respectively, a total of 26,000 square feet. The largest of these, however, lacks considerable of being sufficient for any well organized games.

Immediately south of the school property is one of the city bath houses. Around this building is about 21,000 feet of space, which I was told is administered as a summer playground, but which does not offer any open space more than about 50 feet wide. This limits its usefulness as a playground. The high wire fence which surrounds this property, owned by the municipality, extends across between it and the school property, and at the time of my visit the gate was locked. Boys in the school yard told me that they were allowed to use this property, but that they had to go around on the other side of the block to enter. There may be considerations which are not apparent to the casual observer which governed the placing of this bath house upon this lot, but the inquiry is pertinent as to why it should ever have been placed here when this ground is so sorely needed in connection with this school. The new part of the school building evidently took a considerable part of the available land on this block, and I was told that plans are under way for replacing the old part of the building with a new structure which will still further encroach upon the small amount of space which remains.

If we apply our formula of adequacy to the 26,000 square feet now included in the school yard, we have for our 1,900 children slightly over one-half of what they really need. Cut up as it is, however, into these small plots, it is not one-third adequate. If the 21,000 feet around the bath house property were open for use and not in long, narrow strips, and all the land now around the buildings were in one piece and the two combined, we would have exactly the 47,500 square feet needed for this school population.

However, two large parochial schools complicate the problem, one to the south and the other to the east of the school, whose populations overlap that of the school. No exact figures are at hand, but I was told that the parochial school on the east is the largest in the city, so that Wilson Avenue school and its playground must think in terms of a child population fully as large, and in a neighborhood almost as congested, as that which is the responsibility of McKinley School. Riverbank Park, which is about a quarter mile west of this school, and Independence Park, about an equal distance to the east, touch the fringe of this problem but do not solve it.

Two steps should be taken in meeting this situation. The property facing on Wilson Avenue south of the old school, now occupied by a garage and several tenements, containing about 15,000 square feet, should be acquired at once, and the school board should have adminis-

trative control of the property around the bath house and remove the fence. This would give a play space that would be more adequate to immediate needs and would throw together for effective use several of the yards which are now separated.

If it is planned to replace the old section of this school by a newer and larger building, instead of having it encroach upon the present playground or that which should be acquired by condemnation of the garage and tenement site mentioned above, the remainder of the block to the north, including everything except the little church property upon the corner, should be acquired, adding 35,000 additional square feet and rendering effective the 25-foot strip 150 feet long which runs through this piece of property up to Ferry Street. This then would give about 40,000 square feet in this one piece on the north side of the school and make this plant begin to measure up to its responsibility in serving the neighborhood.

III. ALL-YEAR SECONDARY SCHOOLS

Under this heading we must consider Cleveland Junior High School and Central High School. The two schools, however, are utterly unlike. Cleveland, while called a junior high school, has all of the grades from kindergarten through the junior high school and the only difference between this school and one of the schools in the previous group was the fact that it takes care of children one grade more advanced than those in Wilson Avenue, McKinley and other schools of that type.

Central High School, however, is a purely secondary school problem.

1. *Cleveland Junior High School.* Enrollment 1,834.

Indoor Facilities:

The gymnasium has 3,500 square feet on the main floor, and there are two play-rooms with high ceilings and open space without equipment which contain an additional 3,500 square feet. This total of 7,000 square feet is amply adequate for the indoor needs of this school population of 1,800.

Outdoor Facilities:

When we come to outdoor facilities, however, there is practically nothing worth considering. The space around the building is almost entirely terraced and the yard at the south of the school contains about 4,500 square feet, but is only 25 feet wide, which immediately denies it any great value in the play life of the children.

Immediately south of this 25-foot strip there is an additional 50 feet which ought by all means to be acquired. This would give about 13,500 square feet of space, and be one-third adequate to the needs of the children who attend this school.

The Westside Park of the Essex County Park Commission is near enough to be on the fringe of this problem, and the reports of the Commission show that the playground upon this park has the

largest attendance of any single unit except the playgrounds in Branch Brook Park. Without doubt many of the children in this school are making use of these facilities, but for the smaller children who live in this neighborhood and to the south and east of the school, Westside Park cannot meet the need fully, and the acquisition of the space suggested should be given attention, both as a school and a neighborhood asset.

2. *Central High School.* Enrollment 2,218.

Indoor Facilities:

The gymnasium of Central High School is rather difficult to evaluate because of its peculiar location in the building. There are 2,400 square feet in the clear and almost an equal space to the sides and under the galleries. If the former is rated as entirely effective and the latter two-thirds effective we would have a rating of 4,000 square feet. This is about one-half of the necessary space for this school in an 8-period day. The room on the northwest corner of the upper floor is being used very effectively by classes which alternate in the gymnasium, so that the needs of these high school students are being met in a far more effective way than the equipment which is provided would seem to indicate. The rooms which are used for correctional work add something to the adequacy of this plant, but in the light of the modern school curriculum and up-to-date provision for this type of activity one finds many things to criticize in this plant.

No gymnasium should be located, as this one is, below the ground. In a high school a gymnasium is used, in addition to its curricular activities, for the games which are carried on with other similar institutions. These contests have a definitely recognized social and morale building value. The administrative details connected with such use of the Central High School gymnasium seem to me to be almost insurmountable. A considerable sum of money has been recently spent in repairs in and around the gymnasium, but evidently the work has been carried out without consultation with those who are closest to administrative problems.

For example, a new floor was laid in the gymnasium, a floor of maple of excellent quality. When the first gymnasium class came on the new floor after its completion it was discovered that it had been beautifully waxed, which would make it excellent for dancing but rather poor for gymnasium use. Several accidents were narrowly averted until the floor was sprinkled with powdered resin.

There are other serious defects to be noted. A little used section of the showers was adapted for use as a dressing-room for teams who come to the gymnasium for inter-school games. In this dressing-room there are no toilet facilities nor wash basin or drinking water, and these can be found by the boys during a game only after a journey up one flight of stairs through the

crowd and across a long corridor filled with lockers to the other side of the building.

On the north side of the gymnasium are the girls' lockers and shower-rooms and the rooms for correctional classes. Here again there are no toilet facilities, which must be found by going out into a corridor and up to the floor above. For the regular use of the gymnasium the boys must in going to the gymnasium pass through a corridor in which the school lockers are located, and at the time of my visit we crowded our way through several hundred girls who were getting books from their lockers or leaving coats or wraps in them, a condition which I am told, prevails every time classes change, so that whenever boys come to the gymnasium they must pass in large numbers through this corridor under the same conditions.

These are seemingly small matters, but details which affect administrative efficiency very markedly. There seems to be only one way out. This gymnasium, with its complete equipment and with proper toilet facilities immediately installed, should be devoted entirely to the use of the girls in the school, for whom it would be just about adequate. The property immediately south of Central High School, facing on Summit Street between the Central High School and the Technical School, a plot about 50 x 100 feet, should be acquired for another gymnasium which could be built with a covered passageway, possibly on the second floor, between it and the Central School. This would serve the boys, and be especially valuable for use for the large program of inter-school competition which is continually taking place in a school system such as that in Newark.

The city has made excellent provision at the Stadium for outdoor competition. It is equally valuable to have adequate provision for indoor athletic competition for the high schools. Such a gymnasium, located thus near the center of the city, would be of great value to the entire city as well as to Central High School.

Outdoor Facilities:

Outdoor facilities at Central High School are not available and do not seem to be urgently required. The land between Central School and Technical School, which is now ungraded and unused, might very well be developed for such games as handball, volley ball and outdoor basketball, but a study of the activities of the students in this school would doubtless reveal the fact that nearly all of them have duties to perform outside school hours. Those who are engaged in outdoor activities can take advantage of existing facilities. The members of football and baseball teams go to the Stadium by motor coach, and the students of this school, coming not simply from the neighborhood of the school as would be the case with little children, can find their own outdoor activities if they are provided by the Essex County Park Commission or by any other administration body.

But for its indoor activities the high school must assume a very definite responsibility, which is not being adequately met at Central High School at the present time. Not only is this a matter of school morale and of such training as will promote health through vigorous activities, but it also comprehends a means for taking advantage of the large group interests and instincts of adolescence for developing a sort of citizenship training within the school which can be attained not through athletic competition and physical education alone, but to which no other single activity makes a larger contribution.

General Recommendations

In addition to the specific observations and recommendations which have been made above, some general considerations will be of value.

(1) A word should be said in regard to the excellent administration of the physical education and play activities in the schools which I visited. It has rarely been my privilege to meet a more earnest and efficient group of men and women than those who are carrying on the physical education activities in these schools, while the principals without exception show an exceptional understanding and appreciation of this aspect of their work. Not only does the program seem to be varied and well carried out, but I have noted some remarkable cases of the use of pupil leadership. In one gymnasium 50 or 60 children in the 6th or 7th grade were carrying on their activities with perfect order and great enjoyment under pupil leaders, with the teacher scarcely in evidence. This is a real achievement and one which was noted over and over in the different schools. It speaks well for the personality as well as the technical ability of those who are administering this part of the school program.

(2) No note has been made in the body of this report of the excellent auditoriums which are provided in nearly all of the schools visited. While their facilities are not used in purely physical activities, their use is largely of a recreational nature. Within such places the more purely formal phases of education join hands most effectively with the recreational and play interests of childhood, and too high praise cannot be given to the foresight which has provided these beautiful and commodious auditoriums and to the administrative wisdom which makes a large use of them in the curriculum of these schools.

(3) In the time which was spent in studying these various schools, there was only one day on which the weather was inclement with threatening rain. Upon the other five days, any one of which might have lent itself to comfortable outdoor activities, not a single organized activity was observed during school hours upon the school yard. In one instance, a group of about 40 boys were going through some formal drill, largely marchings and facings, in the play-room, which is upon the same level as the playground and separated from it only by a door, which was

not locked. The out-of-doors would have been much more suitable for this type of activity. There are certain very real administrative problems in connection with getting children out into the yards for short periods in the winter time. In involves hats and wraps. But, on the other hand, even a brief period in the open air is far more valuable than the same amount of time spent indoors, and schedules should, if possible, be so arranged that, where there are school yards, they should be in use for as large a part of the year as possible, even in winter.

(4) I was told in several of the schools that some years ago some difficulty was experienced in the use of a roof, and that a blanket order of the Board of Education forbade the use of all roofs thereafter. There are some physical difficulties involved in the use of roof playgrounds, but the roofs do, however, offer such practical possibilities for extending limited play space that the matter should be studied with a view to overcoming the difficulties and securing this added opportunity for the children to exercise and play out of doors.

(5) The playgrounds, even those which are now in use as after-school and year-round playgrounds, are rather meagrely equipped. There has been in the past in playground administration a danger of substituting equipment for leadership. Newark has, however, not erred in this respect, but it is not getting the fullest value from its play areas because its play equipment is not as ample as it ought to be. Swings of various sorts, teeter boards and all the rest of the standard playground equipment have a tremendous lure for children, and if they are placed in such a way as not to interfere with large group games they add greatly to the effective use of the meagre space which is available. Another playground necessity which seems to be lacking in Newark is shade. There should be small shaded areas for little children and for quiet games even for older children. On a small playground or in a congested section this is difficult to attain, but in future planning the value of shade should be considered.

(6) It is obvious that the chief recommendation in this report has to do with outdoor space. One is always tempted to deplore the fact that a previous generation did not plan more wisely, and that in the building of school plants, yards have been almost entirely filled with buildings and the acquisition of larger tracts neglected at the time new buildings and additions were erected. However, this situation should not preclude a frank facing of present conditions. Play is not only a right but a necessity of children, and no time need be taken to urged its values. If the All-Year schools are continued, play activities must have a place in them no less marked than it has been up to the present time; but regardless of what decision is reached in regard to the immediate question of the continuance or discontinuance of these schools, there is the problem of after-school play. The danger period in young life is found in leisure time. After school, Sat-

urdays, Sundays and holidays must be taken into account even if the schools are continued on an All-Year basis, and as warm weather approaches it is obvious that outdoor activities will be increasingly popular and useful. If the All-Year plan should be abandoned another problem is at once faced, for the Board of Education would have an increased summer responsibility for these 17,000 children.

In any case, Newark, a progressive city with tremendous and varied economic resources, cannot afford to stand still in this development, which is of proven worth for the welfare of its children, its future citizens.